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Cognitive Styles and Self-Efficacy of Teacher of English Language Learner Students

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ABSTRACT

The fast growing number of ELL students in the nation's schools creates a greater challenge regarding the education of this particular population, where most of the challenges were related to school performance. The achievement difference among ELL students and monolingual English speaking students was notably marked (NCELA, 2008). In addition, the No Child Left Behind Act (NCLB) of 2001 established several requirements, including that teachers use research-based strategies. The National Center for Education Statistics (NCES, 2007) reported that only 29.5% of all teachers had formal training in strategies for ELL students. Smith-Davis (2004) highlighted that ELL teachers were not adequately prepared to assist ELL students to reach the maximum academic potential necessary for raising student achievement. Studies which focused on self-efficacy highlighted how teachers' sense of self-efficacy strongly influenced instruction, as well as student performance

Standardized testing continues to be the tool of preference when assessing student achievement in American schools (Klein, 2000). The states also required little or no professional development and school districts across the nation were providing insufficient training for ELL teachers. Herrera and Murry (2005) found that ELL students spent the majority of school time in grade-level classrooms with teachers that may have had little or no training in the special needs of ELL students. Tucker, Porter, Reinke, Herman, Ivery, Mack, and Jackson (2005) found a positive correlation between (a) higher levels of teacher efficacy; (b) student engagement; and (c) academic achievement among culturally diverse students.

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CHAPTER I

Introduction to the Study

The population of English Language Learners (ELL) encompasses a considerable number of students set apart by (a) low academic achievement; (b) high rates of grade retention; and (c) school dropout (NCES, 2009). Lessaux (2006) posited the education of ELL students was in a "state of crisis" (Lesaux, 2006, p. 2407). In 2007, nearly 69% of Hispanic students and about 64% of Asian elementary and secondary school students spoke a language other than English at home. It became increasingly difficult for schools to provide an equal education to ELL students who were not proficient in English (NCES, 2010).

The *No Child Left Behind Act (NCLB)* of 2002 signed by President George W. Bush, allowed the federal government to monitor state level efforts to ensure high quality education for all students and close the achievement gap among minority and disadvantaged students (NCLB, 2002). The act required all ELL students to be placed in "high quality language instruction educational programs that are based on scientifically research and that demonstrate the effectiveness of the programs to increase (a) English proficiency; and (b) student academic achievement in the core academic subjects" (NCLB, 2002). The law also required that ELL students would be (a) included in each state's high-stakes standardized tests; (b) tested in a valid and reliable manner; and (c) be provided reasonable accommodations (NCLB, 2002).

The publication of A Nation at Risk of 1983 was the first event to call attention to student performance in U.S (National Commission on Excellence in Education, 1983). The report revealed that American students were performing considerably below students from other countries in both reading and math. The results ignited a standards-based movement and the establishment of a variety of new state mandated testing.

Garcia, Kleifgen, and Falchi (2008) emphasized the results of the national trend of high-stakes testing in English for ELL students in the U.S. showed evidence of the following: (a) a large number of students received remedial instruction; (b) students were more likely to be placed in a lower curriculum track; (c) higher dropout rates; (d) lower graduation rates; and (e) inequality in referrals to advanced education classes. In addition, concerns with validity and reliability of standardized testing for ELL students were noted. The high-stake tests constructed for monolingual students contained a built-in content bias, since the monolingual test did not reflect the language structure and was not relevant to the ELL students' knowledge (Garcia, Kleifgen, & Falchi, 2008).

Grigorenko, Meier, Lipka, Mohatt, Yanez, and Sternberg (2004) concluded that students, who were from non-mainstream cultures, often exhibited a different kind of knowledge that was relevant to their cultures and lives while at school. Teachers often failed to identify these distinct forms of intelligence and adaptive knowledge and typically did not provide the scaffolding that students needed to foster further learning in order to achieve a high quality education. Cognitive style abilities could not be assessed by standardized tests alone. According to Gardner (1983) the schools' views on intelligence was to value the verbal and logical-mathematical skills related to the IQ test and exclude creative and divergent thinking.

The National Literacy Panel on Language-Minority Children and Youth ascertained that individual differences affected English literacy development. Consequently, the panel's recommendations required that differentiated curriculum assist the individual needs of ELL students. ELL students differed widely in: (a) educational background; (b) age; (c) motivation;

(d) socioeconomic status; (e) literacy skills in native language; and (f) mastery of content knowledge (August & Shanahan, 2006).

Gay and Howard (2000) indicated general concerns in regards to the ability of current teacher education programs with being able to fully prepare teachers for culturally and linguistically diverse classroom. Studies relating to teachers' preparation and programs, revealed how teachers consistently reported the inability and under preparedness to educate students from culturally and linguistically diverse backgrounds (Knoblauch & Hoy; Ladson-Billings, 2000; Ruston, 2000).

Tucker, Porter, Reinke, Herman, Ivery, Mack, and Jackson (2005) found a positive correlation between (a) higher levels of teacher efficacy; (b) student engagement; and (c) academic achievement among culturally diverse students. Chacon (2005) reported a positive relationship between teachers' sense of efficacy and English language proficiency. Studies that related instructional strategies and self-efficacy to student achievement yielded a positive relationship between student self-efficacy and student performance (Anjun, 2006; Maier & Curtin, 2005; Wadsorth, Husman, Duggan, & Pennington, 2007).

According to Mezoff (1982) the difference in cognitive styles impacted the differential effectiveness of a substantial number of educational programs. Triantafillou, Pomportsis, and Georgiadou (2002) used hypermedia to accommodate students' cognitive styles. The findings showed evidence of improvement in student interactions and learning. DeTure (2004) related cognitive styles and self-efficacy with (a) online distance education; (b) hands on activities; and (c) highly interactive environments. The results indicated that students with the specific cognitive style of field independent showed higher levels of self-efficacy. Consequently, the

study attempted to examine the relationship between the cognitive styles and self-efficacy of teachers of ELL students.

Statement of the Problem

The current American educational trend focusing on accountability negatively affected the education of ELL students (Crawford, 2004). Consequently, schools around the nation were negatively affected by the accountability measures, specifically ELL students. The enactment of the NCLB Act brought about changes in the ways ELL students received instruction. Many schools adopted the "English-only" setting, and the mainstreaming process has jeopardized as the pressure for reclassification of the ELL to fully English proficient increased (Lesaux, 2006).

The results of the researcher's study will help support the urgent need to replace the above trend with ELL programs in order to meet the specific needs of the already low performing ELL students. Tests by themselves cannot produce the desired improvement to schools, since assessments do not deal with matters of (a) teacher effectiveness; or (b) student engagement. The most detrimental aspect of the testing movement has been that the time spent on test-taking preparation overemphasized basic skills and neglected higher-order thinking skills (Stiggins, 1999).

The country's student population continued graduating from high school having attained (a) minimal preparatory skills for the workplace; (b) poor learning strategies that affect retention in higher educational institutions; and (c) inadequacies in the ability to compete with the challenge of globalization (Achieve, 2008). With the fast economic development of China and India, the world is now constantly changing to stay competitive, while demanding a workforce capable of keeping up with the challenge of global economies (Friedman, 2005). Wright (2006)

noted that there was a lack of evidence supporting high-stakes testing policies improved ELL students' education. Holmen (2006) highlighted that with limited levels of proficiency in the mainstream language, ELL students were expected to fare well when assessed by the same standards as the native speakers.

The literature indicated concerns regarding the education of ELL students in American schools. The low academic achievement among ELL students has also been noted. The researcher identified the following three issues as problem areas that need further investigation and study: (a) the educational performance of ELL students in American schools; (b) the *No Child Left Behind Act* sanctions; and (c) the cognitive styles and learning strategies used by ELL students.

Educational Performance of ELL in American Schools

In recent years, researchers have monitored what types of models work best for ELL education at the state and national levels. At the national level, the *NCLB Act* (2001) required that "every state including the District of Columbia hold schools accountable for improving academic achievement" (Building on Results, 2007). In addition, every state was required to be part of the *National Assessment of Educational Progress (NAEP).* The NAEP goal for student learning was to demonstrate knowledge by applying concepts to everyday situations.

A summary of studies conducted by The Center for Research on Education, Research and Excellence (1998) reported that bilingual educational programs were more effective than other programs for ELL students. Similar findings were provided by Thomas and Collier (1997), who conducted a longitudinal study, which was comprised of data from 1982 to 1996 and collected from 700,000 language minority students attending five large school districts in the United

States. Genesse et. al. (2006) corroborated the previous finding that favored bilingual instruction over English-only models. Although, the number of high-quality studies that concerned ELL student education continues to grow, the need for more thorough research to provide deep understanding of effective instruction of the ELL student population still exists (Practice Research, 2009).

"The U.S Census 2000 statistics and figures indicated that LEP/ELL students were the fastest growing subgroup of the school age population in the country. However, under the NCLB the population made very little progress on state assessments and had the highest dropout rate and lowest graduation rate in the nation" (NCLB Issue Brief, 2007, p. 10). According to The Nation's Report Card (2003), a large number of ELL are failing in schools (NCES, 2003) based primarily on three main issues: (a) absence of valid and reliable identification and classification practices; (b) normative developmental trajectories of ELL language and literacy skills; and (c) a lack of understanding of effective instructional practices (Lesaux, 2006).

The National Literacy Panel on Language-Minority Children and Youth and the Institute of Education Sciences at the U.S. Department of Education (2006) selected the effective instructional approaches with strong evidence that worked concerning the education of ELL students. The panel concluded the following to develop English language literacy of ELL students: (a) well-developed oral proficiency skills and native language literacy; and (b) high-quality literacy that fostered oral proficiency in English that covered key components of literacy (phonemic awareness, decoding, oral reading fluency, vocabulary, reading comprehension, and writing).

No Child Left Behind Act Sanctions

The purpose of the *NCLB Act* (2001) was to guarantee high levels of education to all students, and to close the achievement gap among: (a) economically disadvantaged students from higher socioeconomic backgrounds; (b) major racial and minority students and ethnic subgroups; (c) students with disabilities; and (d) English minority students (Linn, 2006). The enactment of the *NCLB* Act has brought to the public schools a tremendous amount of pressure to increase student achievement, causing damaging tension in schools (Klein & Zevenberger, 2006). Schools were held accountable by ensuring that ELL students attained *adequate yearly progress* (AYP) (NCLB, 2001).

AYP for ELL students was set by the states based on the proficiency of the reading mathematics, and language standards. The AYP report included the performance of each subgroup of the total student population. The report indicated the performance by: (a) ethnic groups; (b) students with disabilities (SD); (c) English Language Learners (ELL); and (d) the economically disadvantaged (ED). The expectations of the AYP objectives included the increase of graduation rates at the high school level (No Child Left Behind: A Road Map, 2005). In addition, schools were rated based on student performance. Schools were deemed as needing improvement when failing to meet AYP for two years in each of the subgroups, thus obligating the states to publically identify the schools and give parents the choice to attend a better performing public school or charter school (NCLB, 2001).

Research results found that with the enactment of the NCLB Act, a majority of the ELL population in the U.S. received instruction in an English-only setting. Zehler (2003) reported that (a) 60% of the all LEP students received instruction only in English; (b) 20% of the LEP

students were instructed using some of the LEP student's native language; and (c) 20% of the LEP students were instructed using their native language a considerable amount of the time.

The *NCLB Act* (2001) has increasingly placed more pressure on schools districts to reclassify ELL as FEP (fluent English proficient) students. The ELL students under Title III were required to meet three annual measurable achievement objectives (AMO): (a) make annual progress; (b) attain English proficiency; and (c) meet AYP required by the state standard assessment. However, schools and school districts that failed to meet the requirements of the act for two consecutive years were forced to develop a plan for improvement. Schools that did not achieve the progress according to AMO for four consecutive years would receive severe sanctions, including the removal of Title III funds (NCLB, 2001).

The drastic reclassification created by the passage of the *NCLB* caused a great level of pressure for students and teachers, as students were expected to boost academic achievement in content subject areas (Lesaux, 2006). In addition, states were compelled to monitor the normative trajectories and understanding of the ELL students for two years after the reclassification to FEP. The NCLB Act has significantly contributed to the primary factors leading to the lack of understanding of language and literacy development of ELL (Lesaux, 2006).

On March 13, 2010, the U.S. Department of Education released a proposal to revise the Elementary and Secondary Education Act (ESEA), also known as NCLB (U.S. Department of Education, 2010). The U.S. Department of Education proposed three main goals for reauthorization by 2020: (a) to raise standards; (b) to provide incentives for excellence and

growth; and (c) to increase state and district control in order to maintain the focus on equity and narrowing the achievement gaps (U.S. Department of Education, 2010).

Identifying ELL Cognitive Styles and Learning Strategies

Cognitive styles appear to be a fixed characteristic of an individual in comparison to strategies which were alternatives used by the learner to cope with situations and tasks (Riding, Glass, & Douglas, 1993). The two main types of strategies used by language learners are meta-cognitive strategies and cognitive strategies. Meta-cognitive strategies involve (a) thinking about how to better learn; (b) planning one's learning process; (c) monitoring one's own speech or writing; and (d) evaluating the success of a particular strategy. Cognitive strategies operated directly on incoming information and manipulated knowledge in ways that enhanced learning (O'Malley, 1990).

Both meta-cognitive and cognitive strategies entailed a conscious effort of tackling learning in the areas of: (a) note-taking; (b) resourcing (use of dictionaries and other resources); (c) organizing information; and (d) social strategies (learning that takes place by interacting with others) (Ghani, 2003). According to O'Malley and Chamot (1990), the effect of social interaction as an effective strategy for language learners was less often found in research. The reason may be due to fewer studies focusing on the kind of behaviors, rather than the feelings and social interactions of learners (Ghani, 2003).

The strategies used by second language learners were very different. Each learner employed a unique set of skills due to factors such as: (a) degree of awareness; (b) stage of learning; (c) task requirements; (d) teacher expectations; (e) age; (f) gender; (g) nationality/ethnicity; (h) general learning style; (i) personality traits; (j) motivation level; and (k)

purpose for learning the language (Oxford, 1990). According to Myhill (2004), learning styles produced a greater impact on second language acquisition than intelligence, as measured by the IQ test. "Learning strategies appropriate for one type of learning situation may not be appropriate for another" (Chen, 2002, p. 11).

Keefe (1979a) suggested that the learning styles of ELL students are determinants of language acquisition. "The learning styles of ELL students were as follows: (a) cognitive; (b) affective; and (c) physiological traits, all of which are relatively stable indicators of how learners (a) perceive; (b) interact; and (c) respond to the learning environment" (Keefe, 19790.

Gardner (1977) identified eight diverse forms of intelligence: (a) linguistic and logical; (b) spatial; (c) musical; (d) bodily kinesthetic; (e) interpersonal; (f) intra-personal; and (g) appreciation of the natural world. Furthermore, Reid (1987) determined that ELL's strongest learning style is kinesthetic learning. O'Malley, Chamot, Stewner-Manzanares, Russo and Kupper (1985) claimed that the learning strategies of successful language learners, after being identified, could be used as a guide for teaching less successful students to enhance second language acquisition.

Definition of Terms

The following definitions of terms are relevant to cognitive styles and self-efficacy and ELL students' academic performance:

Academic Language "is the knowledge of the special language used in school and in professional settings. In school, academic language is the language of story problems in math, social studies, and science texts" (Krashen, 2007, p.1). Academic language encompasses complex syntax, academic vocabulary, and complex discourse styles (Krashen, 2007).

Basic interpersonal communication skills (BICS) is the language required to establish face-to-face communication (United States Department of Education, 2008).

Bilingual Education is defined as an educational program that involves the use of two languages of instruction at some point in a student's school career (Diaz, 2001, p. 160).

Cognitive academic language proficiency (CALP) is the language required to reach levels of achievement in academic settings (United States Department of Education, 2008). It has been defined as the ability to learn new concepts, problem solve, infer, and evaluate using the second language in the regular classroom (Myhill, 2004). The prerequisite for the development of cognitive academic language proficiency is when context is not entrenched and there is a high demand for cognition (Cummins, 1981).

Cognitive style "is an individual's characteristic and consistent approach to organizing and processing information" (Riding, Glass, & Douglas, 1993, p.2).

Cognitive learning styles "refer to a pervasive quality in the learning strategies or the learning behavior of an individual, a quality that persists though the content may change" (Reid, 1987, p. 89). Learning styles include sensory modalities such as visual, auditory, kinesthetic, and tactile (Myhill, 2004).

English Language Learners are students whose primary language is other than English and who are acquiring English as a second language in school. ELL students are born both outside and inside of the U.S. or use a language other than English at home (Garcia, 2008).

English as a Second Language (ESL) is a program of skills, methodology, and curriculum designed with the objective of assisting ELL students to develop English skills. The

instructional methods include listening, speaking, reading, writing, and content vocabulary, instructed in the English language (United States Department of Education, 2008).

Instructional strategies in language acquisition are the strategies that assist students with language and literacy development, making academic language more comprehensible (Krashen, 2007).

Language (second) "is acquired in socially conditioned, cultural contexts. Culturally-determined experiences provide the background knowledge that serves as the foundation for literacy development and academic achievement" (Myhill, 2004, p. 405).

Language acquisition "is a part of human development that begins in infancy. Most children are exposed only to one language (monolingual), but some children learn more than one language from birth and are considered simultaneous bilinguals. Children who learn a second language later in life are referred to as sequential bilinguals" (Sherow, 2006, p. 10)

Language proficiency refers to the degree over which students exert control of language, including indicators of language skills in the areas of phonology, syntax, vocabulary, and semantics (U.S. Department of Educaction, 2008).

Learning strategies are "the ability to use strategies to be understood and knowing how to learn independently" (Sherow, 2006, p. 10).

Motivation of learning is defined by social cognitive researchers as a process in which goal-directed behavior is instigated and sustained (Pintrich & Schunk, 2000).

Multiple Intelligences refer to how one's own set of cognitive competence are displayed in terms of abilities, talents or intellectual capacities (Gardner, 2006).

Self-efficacy is the personal reliance on one's ability to execute and organize a set of activities that lead to problem solving or goal attainment, despite lack of strength, task difficulty or high level of intensity, required in many situations (Bandura, 1997).

Cognitive Style

Researchers and educators have examined cognitive learning styles since the 1970's in an attempt to understand the different ways that learners perceive information within the context of the instructional environment. The cognitive style was characterized by two fundamental cognitive style dimensions: (a) analytic versus holistic thinking; and (b) conceptual versus experimental thinking (Leonard & Straus, 1997).

The Cognitive Style Indicator (CoSI) developed by Cools & Van den Broeck (2007) to measure the variable of cognitive styles. The instrument measures analytic versus holistic thinking and conceptual versus experiential thinking using the CoSI. Combining the two dimensions yielded the following four cognitive styles: (a) knowing style; (b) planning style; (c) creating style; and (d) cooperating style. The CoSI assisted in determining whether learners have the knowing, planning, or creative style. The identification of learning styles was beneficial to ELL educators due to the following (a) ELL students come from different language backgrounds and sometimes differ from one another in their learning style preferences; (b) variables such as gender, length of time in the United States, length of time studying English in the United States, field of study, level of education, and age, influence learning style; and (c) modifications and extensions of ELL student learning styles occur with changes in academic environment and experience (Reid, 1987).

Self-Efficacy Theory

Self-efficacy was grounded in the theoretical framework of Bandura's *social cognitive theory* (Bandura, 1997). Bandura introduced the construct of self-efficacy in his 1977 publication of "Self-efficacy: Toward a Unifying Theory of Behavioral Change," where Bandura classified self-efficacy as a missing key element of *social cognitive theory* (Pajares, 2002). Bandura continued developing the self-efficacy theory, and published the book *Self-Efficacy:The Exercise of Control*, which explained the applications to various fields such as (a) life-course development; (b) education; (c) health; (d) psychopathology (e) athletics; (f) business; and (g) international affairs (Pajares, 2002).

The self-efficacy theory derives from the belief that one's personal capacities are the core to how individuals respond to tasks (Maier & Curtin, 2005). Bandura (1997) established that self-efficacy affected human functioning through motivation, thoughts, and actions, which also affected people's (a) feelings; (b) thoughts; (c) drives; and (d) actions. Self-efficacy beliefs were a determinant for (a) human motivation; (b) well-being; and (c) sense of accomplishment. The incentive people have to get involved in arduous situations was increased when individuals believed the outcome would be a desirable one (Pajares, Johnson, & Usher, 2007).

Purpose of the Study

The primary purpose of this non-experimental exploratory correlational study is to explore the relationship between teachers' cognitive styles and the self-efficacy of teachers of ELL students in a public school district in Southeast Florida. In addition, the primary researcher will investigate teachers' (a) demographic characteristics; (b) sense of competence; and (c) sense of efficacy when teaching ELL students. The specific purposes of the research study will

examine if the demographic characteristics of teachers of ELL students are related to cognitive styles and self-efficacy.

Grigorenko et. al., (2004) suggested that "cultural knowledge, often neglected in traditional instruction, can make a difference in student achievement" (p. 32). Knowledge of cognitive styles was beneficial to educators of ELL students due to the fact that when cognitive styles were identified in the school setting, the learning process could be matched to the student's cognitive style (Riding & Cheema, 1991). Furthermore, the researcher will seek to answer how cognitive styles of teachers of ELL students impact self-efficacy. Finally, the study will attempt to understand the issues concerning teachers of ELL students.

Significance of the Study

The topic areas of teachers' cognitive styles, self-efficacy, and teachers' demographic characteristics are relevant due to the need to evaluate effective strategies used by ELL teachers that impact the academic performance of ELL students (Association, 2007). ELL students possess a different cognitive style of learning and when teaching and assessment take place in ways that were in alignment with the different student strengths, students learn and performed better (Grigorenko et. al., 2004).

The researcher chose to measure the levels of self-efficacy among teachers of ELL students and its impact on student learning due to the limited body of research on the topic. Although, self-efficacy studies have been conducted on students, there is a gap in the literature concerning self-efficacy among teachers of ELL students. The research in the area of cognitive styles and self-efficacy of teachers of ELL students is relatively new. The understanding of the cognitive styles processes of ELL students is relevant to educators of ELL students, since the

different cognitive styles of information processing (knowing, planning, and creating style) affect the level of self-directed learning (Ching, 1998).

The development of cognitive strategies of instruction emphasizes the development of thinking skills to enhance academic achievement and learning (Riding & Cheema, 1991). Scheid (1993) underlined that the cognitive strategy of instruction enabled all students to strategically increase the level of self-reliance and become more flexible in the learning process. The use of cognitive learning strategies has been associated with successful learning (Borkowski, Carr, & Pressley, 1987; and Garner, 1990 (Livingston, 1997). Halpern (1996) stressed that cognitive strategies were identifiable strategies, previously believed to be utilized only by the most successful and the brightest students and can be taught to all students, including the less successful students. Self-efficacy was also associated with the motivational factor needed for achievement by students (Bembenutty, 2008). Consequently, Zimmerman (2000) determined a correlation between self-efficacy and academic achievement.

Myhill (2004) indicated that ELL students arrived in American public schools at every age, with various levels of literacy, and from all socio-cultural backgrounds. The deficit of (a) qualified instructional personnel; (b) proper methods of classification; and (c) low academic achievement of ELL students indicated the need for more research in the area of language instruction (Crawford, 2004). The North Central Regional Educational Lab (2004) reported that only 31% of teachers in public schools participated in ELL-related professional development during 1998, and the likelihood of those teachers teaching in schools with 50 percent or more minority student population was greater (Thompson, 2004).

Assumptions

This study will build upon certain assumptions:

1. All students are classified as ELL students.
2. All teachers have specific cognitive styles (knowing, planning, and creating style).
3. All teachers have different levels of educational attainment.
4. All teachers have defined levels of self-efficacy.
5. All teachers are able to properly read and comprehend the survey questions.
6. All teachers will complete the surveys truthfully and to the best of the ability of the participants.
7. All teachers are able to access the online surveys.

Delimitations and Scope

The delimitations of the study are that subjects will be limited to K-12 public school educators teaching ELL students and core academic subject areas from a Southeast Florida public school district, one of the largest in the nation. The participants in the study will range from first year teachers to veteran teachers with various degrees ranging from undergraduate to doctorates. Teachers working at either private schools or outside of the district will be excluded from the study. The study is limited to one source of participants, due to availability.

Teachers will receive the invitation to participate in the study through the teacher union. The president of the district's teacher association will send a link of the online surveys to the email addresses of its union members, consisting of 14, 900 members. All participants must have Internet access to complete the on-line surveys in the study.

The scope of the research may have a direct impact on (a) establishing the relevance of teachers' cognitive learning styles to increase teacher efficacy; (b) determining whether relations

may exist between teacher demographics and teacher efficacy; and (c) assisting with the role of teachers' cognitive styles as a means for increasing ELL student achievement in the nation.

Organization of the Study

Chapter I

The first chapter will provide an overview of the research problem and an introduction to the concerns of ELL education in American public schools. The chapter will also include information on ELL performance regarding (a) state assessments; (b) the impact of teachers' cognitive styles and self-efficacy on student academic achievement; (c) a statement of the problem areas; (d) the definition of terms; (e) the purpose of the study; (f) the significance of the study; (g) delimitations of the study; and (h) the scope and organization of the study.

Chapter II

The second chapter will provide a review of the literature and theoretical framework leading to the research questions and predictions of the study. The review of the literature will begin with the theoretical perspective of the (a) social development theory; (b) multiple intelligence; (c) social learning theory; and (d) self-efficacy. In addition, the chapter will describe the: (a) history and laws of ELL education; (b) details of the impact of the current NCLB Act; (c) research-based instructional strategies including student-center strategies; and (d) direct instruction. Finally, the chapter will conclude with the synthesis of the literature on cognitive styles and self-efficacy, which focus specifically on the relationship between teachers' cognitive styles and self-efficacy.

Chapter III

The third chapter will describe the research methodology used to answer the research questions and test the hypotheses (to report the correlations and draw conclusion from the data based upon the statistical results). The chapter will also provide details on (a) the research design; (b) the target population; (c) sample population; (d) research instruments; (e) procedure of data collection; (f) ethical considerations; (g) methods of data analysis; and (h) methodology for evaluation of the research. The chapter will conclude with the recommendations for future research.

Chapter II

Literature Review and Theoretical Framework

The Nation's Report Card (2007) on English Language Learner (ELL) students reported that these students were performing below grade level in both mathematics and reading/language arts, in comparison to Caucasian, African American, and Hispanic students. The analyses of the assessment data in states where 70% of the total student population were ELL students, consistently indicated that ELL students from Arizona, California, Florida, New Jersey, New York, and Texas were less expected to perform at or above grade level (Fry, 2008). In spite of the state and federal efforts to improve the education of ELL, the achievement gap among students remained unchanged. Although the National Assessment of Education Progress (NAEP, 2009) reported that ELL students have performed higher on state standardized tests in recent years, the below proficiency levels gap remained the same in both reading and mathematics among ELL students.

The causes and consequences of low academic achievement among ELL students continued to gain considerable research interest, especially after the enactment of the No Child Left Behind Act of 2001 (Crawford, 2004). Accountability measurements in public schools have been used as rewarding and sanctioning of students, teachers, and schools (Klein, 2000). The schools were required to report detailed information about the four subgroups: (a) minority students; (b) students with disabilities; (c) students with limited English proficiency; and (d) students from low socio-economic homes (U.S. Department of Education, 2002).

The fast growing number of ELL students in the nation's schools created a greater challenge regarding the education of this particular population, where most of the challenges were related to school performance. The achievement difference among ELL students and monolingual English speaking students was notably marked (NCELA, 2008). The following demographic factors, which ELL students faced, limited these students from overcoming challenges: (a) living under high poverty levels; (b) being unlikely to receive social assistance; (c) lacking participation in early school programs; and (d) coming from homes of parents with limited English proficiency and lower levels of education (The Urban Institute, 2006).

The National Center for Education Statistics (NCES, 2007) reported that only 29.5% of all teachers had formal training in strategies for ELL students. Smith-Davis (2004) highlighted that ELL teachers were not adequately prepared to assist ELL students to reach the maximum academic potential necessary for raising student achievement. Teachers were required to prepare ELL students to learn and succeed in schools (NCELA, 2007a). In addition, Smith-Davis (2004) identified that many states did not require content area teachers to have any specific professional development training in teaching ELL students. Gandara, Maxwell-Jolly, and Driscoll (2005) reported that states mandated little or no professional development and school districts across the nation were providing insufficient training for ELL teachers. Herrera and Murry (2005) found that ELL students spent the majority of school time in grade-level classrooms with teachers that may have had little or no training in the special needs of ELL students.

The state of Florida required teachers to undergo a broad range of training methods and preparation in English for students of other languages (ESOL). Teachers achieved ESOL Endorsement by completing 300 in-service points or 15 college semesters. The courses required to prepare ESOL teachers were as follows: (a) Methods of Teaching ESOL; (b) ESOL

Curriculum and Material Development; (c) Cross-Cultural Communication and Understanding; (d) Applied Linguistics; and (e) Testing and Evaluation of ESOL (MacDonald, 2004). Additionally, basic core subject area teachers who taught ELL students were also required to complete 60 in-service points or three college credits of ESOL strategies (MacDonald, 2004).

Historical Events

Since the late 1960's, American schools have provided education to immigrant, migrant, and refugee students arriving from various countries. The causes for immigrant students becoming the fastest growing group in American schools were: (a) legal immigration in U.S. history; (b) the high influx of illegal immigration; and (c) the fleeing of refugees from other countries (Porter, 1999). The researcher identified the following sequence of events which may have contributed to the development of the ELL education in the United States: (a) the passage of the Immigration Act of 1965; (b) the Mariel boatlift; (c) the repression of the Duvalier and Aristide regimes in Haiti; and (d) natural disasters and civil wars.

Immigration Act of 1965

The passage of the immigration law that President Lyndon Johnson signed in 1965 brought about changes on the national quotas, which allowed a large number of immigrants to come to the U.S. each year (U.S. Justice Department, 1965). The new law was viewed as being mainly responsible for the tremendous flow of immigration in the last third of the 20th Century. Unlike the immigration prior to the 1960's, a great portion of the immigrants come from Asia and Latin America (Portes & MacLeod, 1996). The results of equalizing immigration policies from European and non-European nations altered the ethnic composition (Frum, 2000). Consequently, immigration increased between 1965 and 1970 and doubled again between 1970 and 1990 (Canellos, 2008).

Mariel Boatlift

Nearly 125,000 Cubans immigrants arrived on privately owned boats in Miami, Florida between April and October in 1980 with the intention of escaping the Communist regime. The massive exodus was the end result of the deteriorating Cuban economy and internal tensions on the island. The Cuban government opened up the borders and announced that anyone who wanted to leave could exit the island through Mariel Harbor. A high percentage of the immigrants who were permitted to leave Cuba were (a) young; (b) mostly unmarried males; (c) low-skilled workers with low English abilities; and (c) inmates from jails and patients from mental hospitals (Card, 1990).

Currently, half of the total immigrant population permanently residing in Miami came from the Mariel exodus. The aftermath of the Mariel boatlift, the effects on the economy in Miami, and the labor market were not as negative as expected. The immigration influx increased the labor force by 7% and the number of Cuban workers in Miami went up by 20% (Card, 1990). The Mariel boatlift helped to transform the Cuban immigration policies and relations with the U.S that were limited due the post-cold war practices since late 1950's. In addition, the Cuban immigration influenced the enactment of the Refugee Act of 1980 by President James Carter. Subsequently, the Immigration Reform and Control Act of 1986 and the Immigration Act of 1990 were enacted (Charles, 2006). New official policies and programs were implemented to the new Cuban immigrants that were never applied before to any Cuban immigration to the U.S. (James (1997). The Cuban immigration prior to the Mariel boatlift always enjoyed the acceptable status by the U.S. government. The acceptable status was for the first time

transformed into unacceptable. Cuban immigrants were now subjects of (a) the intervention of the Immigration and Naturalization Services (INS); (b) the lost previous refugee status; and (c) the detention in military camps around the country (James, 1997).

Thirty years after the Mariel boatlift, the Mariel refugees have assimilated into society as well as other groups of immigrants have in the past (Chardy, 2010). The Cuban immigration to the U.S. was perceived as the most successful Hispanic migration in U.S. history (Grenier and Stepick, 1992; Grenier, 2006). Woltman and Newbold (2009) stated that the Cuban immigration transformed Miami from a medium-sized city to a prosperous metropolitan area.

Duvalier and Aristide Regimes

The Haitian migration was described as forced migration throughout history (Charles, 2006). A large Haitian immigration to the U.S., prompted by waves of fear created during the Duvalier government in Haiti, occurred between the years of 1962 and 1982. The increase of political violence during that period, with nearly 80,000 Haitian immigrants arriving to the U.S. shores seeking asylum, resulted in around 25,000 being granted a legal status (Charles, 2006). In addition, in 1963 a teacher and student strike propelled the migration of nearly 5,000 professionals to the Independent Republic of Zaire. The devastating consequences of the drain of professionals out of Haiti had a lasting effect in the country's economy. Meanwhile, Haitian immigrants continued to arrive to the U.S. borders in large groups as the means to escape the impoverishment in the country. The majorities of the immigrants were illiterate and from low socio-economic backgrounds and of peasant descent (Fouron, 1989).

The removal of the Duvalier's regimen in 1987 and the establishment of the first democratic government elected in Haiti did not influence the migration of refugees. After only

nine months of presidency, a military coup against the government of President Jean-Bertrand Aristide and the brutality that followed the action triggered a new wave of migration to the U.S. The inability of Aristide's government to establish strong institutions decreased the level of poverty and corruption, which were the main elements that induced another flow of Haitian immigration (Charles, 2006).

Haitian immigration benefited from the U.S. adoption of the new immigration law, which was prompted by the Mariel boatlift migration and resulted in the admission of the Haitian immigrants who arrived at the same time as the Cubans (Charles, 2006). The new 1980 Refugee Act changed the refugee policy, while providing new categories for refugee admission that were in compliance with the 1951 United Nation Refugee Convention. Under the 1951 United Nation Convention, the United Nations High Commissioner for Refugees (UNHCR) was mandated to seek protection and assistance to all refugees (Forced Migration, 2010). The new act enacted by the U.S. changed the immigration policies, adhering to international legal standards that honored asylum as a matter of right rather than as a discretionary claim (Charles, 2006).

Natural Disasters and Civil Wars

Natural disasters have also been the cause of migrations to the U.S. soil. The acute disruption of a person environment that promoted unplanned human migration was considered a disaster. Natural disasters were considered different from other catastrophes due to the origin of the disaster (Bates, 2002). Natural disasters that caused displacement of people included: (a) floods; (b) volcanoes; (c) landslides; (d) earthquakes; and (e) hurricanes (Forced Migration, 2010).

Severe hurricanes affected the Central American region between1998-2005 and took the lives of 1,100 people, while causing floods and mudslides in El Salvador and Guatemala. The displaced people migrated to the U.S (Migration Information, 2010). Moreover, the 2005 earthquake that affected the northern region of Pakistan killed nearly 87,000 and left millions without a home. The U.S. representative Sheila Jackson-Lee and Al Green sponsored a bill which granted Pakistanis with provided temporary protected status TPS remain in the U.S. to work and live until the conditions in the homeland improved (Migration Information, 2010).

Haiti was impacted by an earthquake of a large magnitude on January 10, 2010, which caused the devastation of the country's infrastructure, mainly in the city of Port-au-Prince. The natural disaster became the determining factor that prompted the U.S. government to grant a temporary protected status to all Haitians immigrants and their children that in turn, allowed them to remain on U.S. soil (Wasem & Ester, 2010). Florida Department of Health, Bureau of Epidemiology (2010) reported that as of February 9, 2010, near 22,500 refugees had arrived in Florida from Haiti.

Civil wars constituted an unnatural disaster that involved the permanent displacement of the people whose environment was altered and the land expropriated for permanent use, causing the permanent reallocation of people (Bates, 2002). During the Vietnam War between 1960-1970, the U.S troops caused the displacement of rural Vietnamese people due to the application of herbicides. The use of defoliants, including Agent Orange, caused the destruction of crops and forest resources forcing the people to migrate. As a result, a large number of Vietnamese people migrated to the U.S. (Bates, 2002). Similar conditions were created in El Salvador, during the Salvadoran Civil War between the years of 1980-1992, where the Salvadoran government used land mines and bombed the fields to force the people from rural areas into the

cities. The war caused the relocation and migration of people arriving in the U.S (Bates, 2002). The Sandinista insurrection in Nicaragua in 1978 against the Somoza dictatorship created a climate of insecurity and forced the Nicaraguan people to leave the country. The U.S. was offered a safe haven, since the neighboring countries had similar political instabilities. The civil war caused the immigration of nearly 2,000 Nicaraguans to the U.S. (McKay & Wong, 2000).

The civil wars and famine in Africa, since the early 1990's, also caused the migration of people. Several countries including: (a) Somalia; (b) Sudan; (c) Liberia; and (d) Sierra Leone were among the most affected (Darboe, 2003). The temporary protected status was granted by the U.S Citizenship and Immigrant Services (USCIS) and the Department of Homeland Security (DHS) to those individuals who fled their countries or who were unwilling to return due to potentially dangerous situations that could jeopardize their safety or freedom (Wasem & Ester, 2010). Since 1991, the U.S. had provided temporary protected status to more than 300,000 foreign nationals from the following countries: (a) El Salvador; (b) Haiti; (c) Honduras; (d) Liberia; (e) Nicaragua; (f) Somalia; and (g) Sudan (Wasem & Ester, 2010).

The result of immigration policies to the U.S. generated a fast growing second generation, from which a large number of immigrants were of school age (Portes & MacLeod, 1996). The U.S Bureau of the Census (1993) reported that 44% of the foreign-born individuals living in the U.S. came during the 1980's, where one in every four entered the country after 1985. In 1997, the population including the first and second generations of immigrants from Los Angeles, which accounted for 62% of the total population, 54% in New York, 43% in San Diego, and 72% in Miami's population (U.S. Bureau of the Census, 2000). From 2001-2002, the largest ELL population was Latinos with 77%, surpassing Asians and Pacific Islanders at 13%. Non-

Latino Whites accounted for 6%, non-Latino blacks were at 3%, and American Indians and Alaskans represented 2% of the population (Hopstock & Stephenson, 2003a).

Many schools where minority students attended were located in areas of low socio-economic status (Portes & Hao, 2004). These schools shared common characteristics including: (a) teacher quality; (b) student ratios; (c) school climate; and (d) teacher expectations (Rumberger & Willms, 1992). Schools with large populations of ELL students were distributed along large metropolitan areas where immigrants were concentrated. The Hispanic group constituted the largest of group of ELL students among other minority groups (Portes & Hao, 2004).

The factors that might have affected the school performance of ELL and the information provided in the Nation's Report Card (2007) indicated the need for school improvement, especially in the education of ELL students. The empirical and theoretical literature related to learning styles, self-efficacy, and teacher preparation, presented a format from which to start further exploration as to how schools could provide additional alternatives to improving student performance.

Theoretical Framework

The researcher identified various theories appropriate to fit the study that were reflected in the literature review including: (a) social development theory; (b) multiple intelligences; (c) social learning theory; and (d) self-efficacy theory.

The theories of social development, Multiple Intelligence (MI), social learning, and self-efficacy highlighted the significance of learning experiences. Based on the social development theory, social interaction played a crucial role in the development of cognition enhanced by

collaboration (Vygostky, 1972). The multiple intelligence (MI) theory recognized that individuals possessed various cognitive strengths and different cognitive styles, which attributed to student's strengths (Gardner, 2006). The social learning theory emphasized the importance of observation and modeling the behaviors, attitudes, and emotional reactions of others as a guide for future actions (Bandura, 1977). Additionally, the social cognitive theory conceived that all human learning occurred through social interactions. The course of action of the above mentioned theories was in alignment with aspects of self-efficacy, which affected human actions (Bandura, 1997).

Social Development Theory

The social development theory, developed by Vygotsky (1962), provided a guide for understanding how social interaction played a role in the development of cognition. According to Vygotsky, from the time children were born social actions were assumed to be major influencers, assisted by adults or peers who were more knowledgeable. The assistance from adults and peers encompassed cultural competence and development, which were enhanced by collaboration. Vygotsky (1972) emphasized that all functions in a child's cultural development emerged twice, initially at the social level and then eventually at the individual level. The development of cognition in children included: (a) voluntary attention; (b) logical memory; and (c) the formation of concepts. In addition, Vygotsky (1972) posited that the relationship between individuals was the foundation for the development of higher order thinking skills.

Tudge (1993) stated that social and cultural interactions were viewed by Vygotsky as historical and cultural forms in which a child's development could not be comprehended without the context in which these interactions took place. Thus, social interactions over time would

develop into: (a) higher forms of thinking and reasoning; (b) problem-solving; (c) mediated memory; and (d) language.

Vygotsky's framework described the level of development attained when children engaged in social behavior. The most widespread definition of the zone of proximal development (ZPD) was "the distance between the actual developmental levels as determined by independent problem and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (Vygotsky, 1978, p. 86). Schutz (2004) depicted ZPD as the difference between a child's ability to solve problems alone or with the need of assistance. The child's assistance provided must be non-intrusive and usually carried out by an adult (parent, teacher, caregiver) or another child who had previously mastered the specific action. Consequently, the effectiveness of ZPD depended on the level of social interactions.

Social interaction, attained with or without assistance, assumed that learning would occur. Vygotsky (1978) concluded that learning stimulated the development of vital internal processes that were exhibited only when the child interacted with other people, the environment, and peers. Therefore, a child's development could not be assessed by interpreting the child's individual development, but rather by assessing the child as part of the environment and development (Jaramillo, 1996). Language played an essential role in the social development of the student's mind through verbal interactions and communication with one another. Language was also the main function for which social experience was represented psychologically. Consequently, language was the instrument for communication in all social experiences in everyday life (Vygotsky, 1978).

Tudge (1990) explained that Vygotsky viewed language as an instrument for humans to exchange social interpretations and meaning and transitions from natural process to higher mental processes. Jaramillo (1996) argued that language development began at a concrete level, with meaningful interactions between (a) teachers; (b) unskilled students; and (c) skilled peers. Unskilled students began by utilizing tangible concrete objects and later making connections with abstract language symbols into words.

Vygotsky's theory assumed a nonlinear learning sequence of development, rather than "constructed" knowledge gained by learners through internalization of concepts by self-discovery (Jaramillo, 1996). Although Vygotsky's emphasis was geared to how individuals gained knowledge by doing, not all experiences promoted appropriate learning. Language use, its organization, and its structure were cultural artifacts used by humans to regulate their biological and behavioral activities, including: (a) cultural; (b) family life; and (c) group interactions (VanPatten, 2007). Jaramillo (1996) described two types of experiences: (a) normative experiences, in which the individual acquires knowledge and experiences growth; and (b) deviant experience, which were the opposite.

Freund (1990) investigated cognitive self-regulation and the relationship between mother-child interaction and the child's ability to improve self-development, which was grounded upon the social development theory. The results revealed that social interaction between mother-child in the presence of a problem-solving activity enhanced child independent performance. Freund's findings highlighted the value of social interactions as the means of facilitating learning, which in turn supported Vygotsky's theory.

Klingner and Vaughn (2004) explored the effects of the helping behaviors of fifth graders, while using Collaborative Strategic Reading (CSR) during English as a second language content classes. The study extended over eight years of prior research studies that used CSR. CSR was created to assist students with reading comprehension in the following areas: (a) reading; (b) learning; and (c) behavior problems (Klingner, Vaughn, et al., 2001). The purpose of creating CSR strategies was to assist schools with three existing educatonal problems: (a) the inclusion of students with disabilities and ELL students in text-related learning; (b) to teach text comprehension strategies that facilitated student's learning from expository texts; and (c) to provide opportunities for social development to students with disabilities (Klingner & Vaughn, 2004).

Klingner and Vaughn (2004) selected the participants from ten classrooms across five schools located in a large school district in the southeastern region of U.S. The student population was predominaly Hipanic, where a significant percentage of the population was comprised of ELL students. Five classrooms were assigned as the experimental group implementing CSR strategies, with a total of 113 students ranging from 26 to 34 in each classroom. The control group, however, was comprised of five classrooms of 98 students. Teachers' years of experience ranged from 1 to 32 in both groups, all certified in elementary education. The researchers were not able to ramdomly assign the teachers due to the fact that some teachers were already familiar with CSR strategies. The teachers in the experimental group attended a full day of a professional development workshop that provided opportunities to: (a) model the strategies learned; (b) research background reading materials; (c) view videotapes with students using CSR strategies; and (d) participate in hands-on practice. (Klingner & Vaugh, 2004).

Student comprehension was assessed by the administration of Level 4 of the comprehension section of the Gates-MacGinitie. The Level 4 of the Gates-MacGinitie had a reliability of .85 and the item difficulty was assessed using the Kuder-Richardson formula 20 (KR-20) ranging from .92 to .93 (Klingner & Vaugh, 2000). The data collected was analyzed with SPSS 9.0 and ANOVA was used to determine differences among groups. The Gates-MacGunitie raw scores were used as dependent variables and the pre-test scores as the covariate. The achievement levels were analyzed using the alpha levels for each group at .017 with the purpose of mantaining a family-wise alpha of 0.5 (Keppel, 1982). Cohen *d* was used to determine the effect of size.

The overall results yielded how the CSR classrooms exhibited higher improvement in reading comprehension and the Gates-MacGinitie post-test was statistically significant towards favoring the CSR classes. In addition, students in the CSR classes demonstrated a high level of engagement by participating in academic-related strategic discussions and helping one another, compared to the students in the control group. The learning disabled (LD) and the low achieving (LA) students exhibited the greatest achievement gains in CSR classes. The results indicated that the behavior demonstrated by the students was directly influenced by the instructional strategies involving working with peers, that teachers provided.

Klingner and Vaugh (2004) noted that the innability to randomly assign teachers to conditions that affected generalizability resulted as a limitation in the study. The recommendation for future studies included: (a) the further investigation of the role of professional development on teacher's implementation of complex intervensions; (b) the effect of teachers' prior knowledge, readiness, and motivation; and (c) the impact of teachers' experiences and educational attainment (Klingner & Vaugh, 2004). The National Reading Panel

(2000) supported comprehesion strategies as an effective tool to improve student achievement. In addition, The National Reading Panel highlighted the role of specific teacher characteristics that might influence successful reading comprenhension.

Gibbons (2003) conducted a study to investigate the role of scaffolding while comparing different intereactions in an ELL classroom. Gibbons compared high quality and low quality negotiation-of-meaning interactions in a storytelling class. The population included 21 students enrolled in English as a second language classes. The results yielded that storytelling seemed to benefit from four types of interactions exhibited by the teachers. In addition, the study suggested that the learner had a great responsibility in the scalffolding process.

Abbey (2005) described dialogue as an exchange of thoughts and ideas through a discussion process that entailed a well organized plan. Dialogue led to profound knowledge and sound practices. Alexander (2005) suggested that teaching through dialogue was motivated by profound knowledge. Bruner's concept of scaffolding in expanding classroom dialogue was in alignment with Vygotsky's framework (Alexander, 2005). Nystrand (1999) conducted a study that explored the frequency of dialogue used in schools. The results showed how dialogue rarely occurred, comprising only 15% of instructional time in near 100 middle and high schools. The finding also revealed that there was much less dialogue or no discussion at all with the low performing students.

A study conducted by Chen and Tsao (2008) investigated the level of impact that scaffolding produced with student achievement and teacher efficacy in an English as a second language class in a public university in the U.S. According to Wood, Bruner, and Ross, (1976), scaffolding consisted of adult controling those elements of the task that were initially beyond the

learner's capacity. Jaramillo (1996) suggested that teachers utilized modeling and scaffolding techniques at a level that was equivalent with the student's development.

The study involved one teacher and six international graduate students from an ESL (ELL) spoken class. The functions of the scaffolding were: (a) recruitment; (b) reduction of freedom; (c) direction continuation; (d) deliniation of critical features; (e) decreased frustration; and (e) modeling (Chen & Tsao, 2008)

The data collection inclucluded: (a) video-taped class sessions; (b) audio taped interviews with instructors; (c) student background information; (d) audio taped student interviews; (e) class materials; and (f) field notes. The whole class discussion was transcribed utilizing transcription conventions of Conversation Analysis (CA). CA was a technique which involved the transcription of the moment-by-moment interactions between the interviewer and interviewee. Descriptive quantitative analysis of the frequency of scaffolding was presented for each participant. The transcribed data from the whole-class discussions revealed the following characteristics: (a) teachers and students were sources of scaffolding; and (b) teachers' use of scaffolding strategies were more frequent than the students. The results suggested that collaborative learning in classroom discussions was an effective tool for teachers and students to construct knowledge, as well as to develop linguistic skills. During the process of shifting the roles of teachers and students, scaffolding seemed to positively affect the individual development of language growth.

Parental involvement in reading seemed to have a positive effect on children's learning (Fawcett, Rasinski, and Linek, 1997; Senechal and LeFevre, 2002; Shaver and Walls, 1998; Weinberger, 1996). A five-year longitudinal study conducted by Senechal and LeFevre (2002)

in three schools in Ottawa and Ontario, Canada, indicated that the literacy levels of children, whose parents were involved with teaching their children reading, increased substantially. The sample size of the study was comprised of 110 Kindergarten students and 58 first grade students of middle and upper middle class children from English speaking families. The study concluded that reading acquisition seemed to be a strong predictor of later reading performance. Weinberger (1996) found that students, who exhibited reading difficulties at school, came from homes where parents provided less time and support to reading.

Meta-analysis studies demonstrated how significant levels of literacy were achieved with parents who read to their pre-school children. Parents who were positively involved in their children's education significantly influenced learning gains, while those children who received assistance from a reading specialist exhibited no significant learning gains. Consistent learning gains in reading and language growth were demonstrated in the results of the study (Bus, van Ijzendoorn, & Pellegrini, 1995).

The following researchers (a) Duvall, Delquadri, Elliott, and Hall (1992); (b) Hook and DuPaul (1999); (c) Leach and Siddall (1990); d) Love and Biervliet (1984); and (e) Thurston and Dasta (1990) replicated the reseach on the efficacy of a parental tutoring program called Progressive Reading Practice (PRP) (Gatti, 2004). The researchers recommended the following strategies for parents: (a) direct instruction; (b) reinforcement; (c) modeling; (d) a highly structured routine; (e) correction methods; (f) oral passage preview; (g) repeated readings; (h) goal setting; and (i) feedback on performance (Noell, 1998).

The study utilized parent tutoring interventions based on the PRP, which made contributions to the reading intervention that were in alignment with the National Institute of

Child Health and Human Development (2000). The modules were compatible with the requirements for reading of NCLB adopted by the federal government in: (a) phonics; (b) reading fluency; and (c) reading comprehension (U.S. Department of Education, NCLB, 2002).

Resetar, Noell, and Pellegrin (2006) inquired about the effectiveness of parent training and reading tutoring methods in a study. The participants were parents of five first-grade students who were reading below grade level and who were enrolled in general education classrooms in Southeast Louisiana. In addition, the students shared the following: (a) all attended the same elementary school; (b) both parents completed high school; (c) all were Caucasian between the ages of 6 or 7; (d) none had been retained; and (e) students were not enrolled in any special education classes or remedial reading instruction.

Parents were trained how to employ a tutoring method that included the following: (a) modeling; (b) practice; (c) phonics; (d) fluency; (e) accuracy building; (f) comprehension; and (g) reinforcement components. The researchers employed the following procedures: (a) experimental design to determine a multiple baseline across participants with a tri-weekly follow up that assessed oral reading fluency; (b) the baseline assessment that was administered prior to parent's training and dissemination of materials; and (c) parental training that was conducted individually to each parent for a period of an hour. The five participants were administered three Curriculum-Based Measures (CBM) of Oral Reading Fluency (ORF), including a standardized procedure while the CBM was administrated.

Twenty-eight percent of all assessments were independently scored, and the interscorer agreement was achieved by dividing all agreements by summing up the agreements and disagreements multiplied by 100. The results of the tests were as follows: (a) the total

interscorer agreement was 98.98%; (b) the interobserver agreement was 99.25%; (c) the baseline assessments were 25.25%; and (d) the reliability was 98.64%.

The overall results indicated that all parents implemented the tutoring procedures with accuracy level above 82%. In addition, students that participated in the study improved oral reading fluency at school during the tutoring period, which suggested the training at home might influency school performance. Therefore, the study yielded a correlation between the improvement from parent-child collaboration and success at school in a short treament period. In addition, the study reflected student gains in reading fluency (Resetar, Noell, & Pellegrin, 2006). The results of the study were consistent with previous studies conducted on parental training and child tutoring procedures (Hook & DuPaul, 1999; Taverne & Sheridan, 1995; Thurston & Dasta, 1990).

The following were limitations in the study: (a) the short period of tutoring time; (b) the small sample size; and (c) there was no clear explanation as to which component determined an increase in words read correctly per minute (WCPM). Considerations for future research included: (a) implementation of a more comprehensive treatment trial; (b) evaluation of the long-term effects of the intervention; (c) recording long-term data associated with the use of effects of the intervention; and (d) increasing the sample size (Resetar, Noell, and Pellegrin, 2006).

Multiple Intelligence Theory

Multiple Intelligence (MI) theory was proposed by Howard Gardner in 1983. The theory emerged when the only form of measuring human intelligence was the traditional Intelligence Quotient measure. The theory was the first to recognize that people possessed various cognitive

strengths and different cognitive styles (Gardner, 2006). For the first time, human intelligence was not conceived in a one-dimensional fashion, as it had been perceived before, but rather as a multi-dimensional approach that took into consideration other areas of human behavior. Further, the theory of MI highlighted eight distinctive forms of intelligences including: (a) linguistic; (b) logical-mathematical; (c) spatial; (d) musical; (e) bodily kinesthetic; (f) interpersonal; (g) intrapersonal; and (h) naturalistic intelligence.

Linguistic intelligence involved the use of language to articulate thoughts and feelings to communicate with others. In addition, logical-mathematical intelligence required the ability to (a) use numbes; (b) quantities and operations; (c) to apply logic; and (d) to comprehend principal casual systems. Moreover, spatial intelligence involved the abilitity to (a) represent; (b) recreate; and (c) transform global perceptions of world around. Furthermore, musical intelligence required the capacity to (a) identify musical pattern; (b) remember music; and (c) manipulate musical notes. Whereas, bodily-kinesthetic intelligence engaged the body or parts of the body to create a problem or to solve a problem. Additionally, interpersonal intelligence required the ability to understand others. Intrapersonal intelligence distringuished the abilitity to understand oneself. Lastly, naturalistic intelligence involved the ability to differentiate elements of the natural world such as (a) plants; (b) animals, (c) mountains; and (d) lakes.

All eight intelligences satisfied the requirements to be regarded as a legitimate form of intelligence. Human abilities were considered forms of intelligence when human intellectual competence was comprised of the following: (a) human beings possessing a full range of intelligences; (b) people displaying differentiated intellectual profiles, including individuals with similar genetic information but different life experiences; and (c) individuals possessing high

levels of intelligence (Gardner, 1983). Kagan and Kagan (1998) stressed that all human intelligences were dictated by (a) genes and (b) environmental interactions.

The MI theory applied to education presented a holistic, integrated, motivating, multimodal, and cooperative learning environment (Poole, 2000). When MI was applied to ELL classrooms, students were given the opportunity to interact in meaningful environments while learning the target language with monolingual students. Teachers were considered facilitators in a child-centered learning environment proposed by the MI theory. Teachers coached students to select (a) topics; (b) time lines of activities; and (c) opportunities to use authentic language (Poole, 2000).

An action research study, applying the MI theory, conducted by Hall-Haley (2005) reported that teachers could positively affect students' strengths and weaknesses, according to the pedagogical styles used by the teachers. The purpose of the study was to seek methods of teaching that could improve (a) classroom management; (b) student attitude; and (c) student learning. In addition, the study specifically examined the effects of cooperative learning and peer tutoring in a foreign language and second language in elementary school. The teachers participating in the study were from: (a) New York; (b) Florida; (c) Texas; (d) Georgia; and (e) Kentucky. The student population was from grades 8 through 12 who were enrolled in either a foreign language class or second language class including levels I, II, and III. The age of the students ranged from 14 to 18 years old (Hall-Haley, 2005).

The participants were divided in two groups: (a) the experimental group; and (b) the control group. The teachers assigned the classes that participated in each group. The students in the experimental group were administered the "Test Your Seven Kinds of Smart" test to

determine the dominant intelligence (Armstrong, 1993). In addition, the students received instruction of thematic and content-based strategies that enhanced MI. Teachers documented the daily process through: (a) charts; (b) logs; and (c) journals. Students were assessed weekly using the following techniques; (a) informal interviews; (b) exit slips; and (c) surveys. The descriptive data was obtained from both groups comparing the student academic performance, resulting from the pre-test and post-test (Hall-Haley, 2005).

Hal- Haley (2005) posited that action research studies positively affected (a) teacher's self-improvement; (b) teaching styles; and (c) pedagogical practices. Donato (2003), after a one-year-long study in Texas, reported that professional development for teachers who utilized action research as a tool improved (a) professional knowledge and (b) foreign language instruction.

In addition, the experimental group using MI-based instruction reported higher levels in oral and written proficiency in the target language (Hall Haley, 2004). Adams (2000) developed standard teaching methods with specific examples of how teachers could impact students' learning using MI. For instance, using process standards, students were offered: (a) various problem-solving strategies (linguistics); (b) numerical data (logical); (c) drawings and diagrams (spatial); (d) dramatization (bodily-kinestheric); (e) translations of problem solving strategies to help memorization (musical); (f) problem solving through cooperative learning (interpersonal); and (g) using goal setting for growth in problem-solving (intrapersonal) (Adams, 2000).

Hall-Haley (2004) sought out to explore the applications of the theory of MI to shape and inform teaching practices and instructional strategies in foreign and second language classrooms in grades K-12. Twenty-three foreign language and English as a second language teachers and 650 students from eight states and three countries participated in an action research study. The

MI survey adapted from Armstrong's book Seven Kinds of Smart (1993), was given to the students to determine the intelligence profile. Teachers were also surveyed to contribute information regarding students' strengths and weaknesses. The study identified, documented, and promoted effective real-world applications of the MI theory and found that the teachers' model was a more learner-centered approach that could benefit more students.

The results indicated the learner-centered instruction from the Multiple Intelligence framework revealed how teachers' pedagogical style influenced students' strengths and weaknesses. The students in both, the experimental and control groups, exhibited growth in oral and written proficiency in the target language. However, the students in the experimental group receiving the MI-based instruction performed significantly higher than the control group. The results of the experimental group revealed an affective outcome in the following areas when MI based instruction was applied: (a) higher degrees of satisfaction with teachers using a variaty of instructional strategies; (b) a positive attitude toward foreign language; (c) greater enthusiam towards learning; and (d) fewer behavior problems (Hall-Haley, 2004).

The limitations of this study were the follows: (a) the classes included all levels and ages (K-12) and different levels of ability (gifted, honors, regular classrooms, LD, ELL); (b) the target content was different for French, Spanish and ESL (ELL); (c) the implementation of strategies varied from teacher to teacher; (d) grading guidelines differed from school to school; (e) alternative assessment corresponded to various scoring methods; and (f) the MI background and practical experience of teachers fluctuated from some having extensive experience to others who were inexperienced with the theory. Hall-Haley (2004) concluded that the theory of MI may have significantly affected the levels of education in foreign and second language classrooms. Ediger (2005) researched the use of MI when teaching mathematics and established

that the following needed to be in alignment: (a) state standards; (b) strategic planning; and (c) the quality of the implementation of the Multiple Intelligences. Moreover, quality planning required the development and selection of a rich curriculum that considered the incorporation of the multiple intelligences (Ediger, 2005).

Brand (2006) conducted a study of 13 inner-city children to develop emergent literacy instruction from an integrated phonics and literature-based approach that targeted the Kindergarten level DIBELS (Dyanamic Indicators of Basic Early Literacy Skills) screening package. During the ten-week period of the study, the students learned the following: (a) the alphabet; (b) phonics; (c) nonsense words; (d) language competence through storytelling methods, such as "draw talk," character imagery, felt board, group role plays, and chants. The approaches were matched to meet the theory of MI using literacy activities to meet the students': (a) interpersonal; (b) intrapersonal; (c) logical-mathematics; (d) bodily-kinesthetic; (e) linguistic; (f) musical; (g) naturalistic; and (h) visual-spatial abilities.

DIBELS reliability and validity were assessed and achieved through test-retest by computing the DIBELS pre-test results and the results after the students participated in the literacy intervention. Letter naming fluency revealed high levels of test-retest reliability (r=.85), phoneme segmentation fluency (r=.84), and nonsense words (r=.76) (Brand, 2006). Validity was achieved by comparing the students' initial DIBELS scores and the teacher classification of the students' averaged performance and abilities in the workbook. The comparison indicated a strong correlation between teachers' rating of the students' workbooks and the DIBELS scores of: (a) letter naming fluency (r=.77); (b) phoneme segmentation fluency (r-.61); (c) nonsense words fluency (r=.68); and (d) word use fluency (r=.51) (Brand, 2006).

The researchers used the *t* formula to determine the standard errors between the pre-and post-test. Good, Wallin, Simmons, Kamenui, and Kaminski (2002) and Haager and Gersten (2004) used standard error to decrease the effect of difference between pre-and post-test (Brand, 2006). Decreasing the effect of the standard error was relevant to the study to determine the strength of weakness of the relationship between the dependent and independent variables. The results indicated that students in the experimental group, who were exposed to the multiple intelligence-based emergent literacy programs during Kindergarten, demonstrated significant gains in skills such as: (a) phonemic awareness; (b) nonsense word competency; and (c) word usage fluency. The students exposed to the treatment enhanced the emergency literature skills demonstrated by the capacity to transfer knowledge to the context of literature, storytelling, and other activities based on MI areas (Brand, 2006).

Social Learning Theory

The social learning theory, developed by Bandura (1977) described the social aspect of learning in which people learned by (a) observing; (b) imitating; and (c) modeling others. Bandura highlighted the importance of observing and modeling the (a) behaviors; (b) attitudes; and (c) emotional reactions of others. Learning was perceived as an arduous venture if people had to depend on their own discovery to determine what actions to take. Human behavior most likely was learned through observations of modeling; while observing others created an idea of how new behaviors were carried out during similar circumstances. The learned behavior would later be utilized as a guide for action in the future (Bandura, 1997).

The premise of social learning was derived from the human explanation of a one-sided determinism which assumed that human behavior was conditioned to a simultaneously occurring

environment (Bandura, 1989). Pajares (2002) described social cognitive theory as the analysis of human behavior where individuals (a) interact; (b) stay interconnected; and (c) become responsible for their own developmental process and change in their environment. Adhering to Bandura's theory, English language minority students would learn the behavior and the norms of their new environment if given the opportunity to enact modeled behavior in an appropriate setting.

Symbolic modeling was found to be a valuable procedure in promoting social development for preschool children, who exhibited the need for social competencies (Keller, 1974). Numerous studies have provided rich evidence of Bandura's theoretical approach on modeling as a mean to convey responses with children (Bandura, 1969; Bandura, Ross, & Ross, 1963; Bryan & Schwartz, 1971; Hicks, 1965; Keller, 1974).

Ching (1993) argued that the modeling process described in the social learning theory was a similar process that occurred when parents taught their children to speak the mother tongue language. Parents did not use direct grammatical rules; rather the parents modeled appropriate language when they spoke with their children. In addition, social learning theory established that individuals would be expected to adopt a modeled behavior when they valued the outcomes of the behavior (Bandura, 1977). In the classroom, modeling required the student to pay attention to the model and to remember what was modeled to the child. The student would remember the images from the model and would then translate the learned experience into actions. In addition, a high regarded model of the same gender and high status seemed to influence the learning process (Bentley, 2003). Behavior theorists stressed that behavior which was preceded by a pleasant outcome, was most likely to be repeated and learned (Bandura, 1977).

Human behavior that was led by a negative outcome was unlikely to be repeated and was not learned (Bentley, 2003, p. 1). Expectations were separated into two types: (a) outcome expectations; and (b) efficacy expectations. Outcome expectation was the expectancy that a particular behavior would produce a certain outcome. For example, students who were expected to receive a good grade would be more likely to work hard to attain the expected grade. Efficacy expectations held the belief that people performed in a particular way with the tendency of avoiding tasks considered to exceed their capability. However, individuals were capable of performing activities that people perceived themselves capable of executing (Alberto & Trautman, 1995; Bentley, 2003; Rosenberg, Wilson, Maheady & Sindelar, 1992).

Bandura (1977) identified a four- step pattern combining cognitive and operant learning: (a) attention, when the individual noticed something out of the environment; (b) retention, when the individual was capable of remembering what was noticed; (c) reproduction, when the individual produced an act that resembled what was noticed; and (d) motivation, when the environment was responsible for the repetition of the action.

Social learning theory was considered to be a link between behavioral and cognitive learning theories for including the following: (a) attention; (b) memory; and (c) motivation (Bandura, 1977). "Most human behavior is learned observationally through modeling, from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action" (Bandura, 1977, p. 2). Social learning theory was gradually expanded and the principals have been applied to the learning of (a) cognitive; (b) motor; (c) social; and (d) self-regulatory skills (Shunk, 2000).

In addition to individual and group learning, social learning theory also dealt with personal competencies, which emphasized the growth of the competencies and social interactions

where the learning took place (Creswell, 1994). Techniques of personality assessment and behavior modification in clinical and educational settings were also addressed (Bandura, 1977; Bower & Hilgard, 1981; Rotter, 1954).

Rotter (1954) explained how the social learning theory pointed out four different variables that must be taken into account: (a) behavior; (b) expectancies; (c) reinforcement; and (d) psychological situations. To explain social learning theory on a study of school productivity, Rotter (1954) identified four variables: (a) the school productivity was the desired behavior; (b) locus of control was the generalized expectancy which indicated that rewards were not linked to a specific behavior; (c) reinforcement was considered the rewards from school achievement and the value attached to it; and (d) the psychological situation driven from the school which provided many rewards for school productivity.

Bembenutty (2008) found that students' self-regulations related positively to (a) student achievement motivation; (b) cognitive strategies; and (c) academic performance. Zimmerman and Kitsantas (1997) corroborated the social cognitive assumption that students needed assistance (modeling) during the initial phases of learning complex skills that would result in successful and effective self-regulated practices.

A narrative research design developed by Ching (1993) was employed to describe the characteristics of the (a) environment; (b) situations; (c) interactions; (d) responses; and (e) language development of ESL (ELL) students for a six-week period. Twenty-nine students participated during the summer of 1993. The goal of the study was to explore the effect of meaningful environment on language development of an ELL student, who had recently arrived

from China to Hawaii. The child's first grade year was in an ESL (ELL) classroom, where the teacher assisted the boy with materials fostering language development.

During the time the study took place, the ESL (ELL) student was exposed to language activities such as: (a) silent and out loud reading; (b) cooking; (c) singing; and (d) other activities encouraging peer interaction. Students were allowed to select books from the library or bring books from home for silent reading time. After silent reading, students shared opinions and impressions of the book with the class. Silent reading allowed the ESL (ELL) student to prepare and think about what would be said before sharing time. After the third day, the ESL (ELL) student felt comfortable sharing a book with the class. When confronted with a lack of vocabulary to share the story of the book, the ESL (ELL) student used an illustration from the book to infer the rest of the story. Consequently, the ESL (ELL) student made connections between the text and the illustrations.

The researcher recommended that more research explore the role of meaningful environments for ELL students in order to assess students' multiple ways of learning (Ching,1995). Ching's six-week program included meaningful classroom experiences where the students were involved in: (a) reading silently and aloud; (b) cooking; (c) playing games; and (d) creating art. Art activities were the medium in which a low English proficient student found the means to communicate with peers. Ching (1995) revealed that meaningful ways of learning such as: (a) art; (b) music; and (c) drama actually enhanced the development of knowledge in content area subjects such as in language arts and mathematics. These expressive avenues for demonstrating knowledge enhanced the language abilities of the ESL (ELL) student.

For future studies, the researcher recommended more research exploring the role of meaningful environments for ELL studentsin order to assess the multiple ways of knowing. More research needed to be conducted to explore the role of alternate sign systems, such as: (a) arts; (b) music; (c) drama; (d) dance; (e) mathematics; and (f) gesture enhanced communication processes.

Rozendaal, Minnaert, and Boekaerts (2005) observed how a specific teaching technique, known as the Interactive Learning Group System, positively affected SRL in particular students. The study included the use of surface versus deep-level processing strategies. The Interactive Learning Group System entailed activating prior skills and then allowing students to work in groups to solve poorly-structured problems.

Carhill, Suarez-Orozco, and Paez (2008) studied language proficiency and language issues by adolescent immigrant students who had recently arrived from (a) Central America; (b) China; (c) Dominican Republic; (d) Haiti; and (e) Mexico. The researchers found that second language learning was influenced by (a) age; (b) time in the U.S.; (c) maternal education; (d) parental English skills; and (e) opportunity to speak in English in informal settings at school. Social learning directly affected language learning among the new comer adolescent immigrant students. The study indicated that young students lacked the social interactions when creating their own language environments (Carhill, Suarez-Orozco, and Paez, 2008).

Self-Efficacy Theory

Self-efficacy was defined as a person's ability to perform certain goal-oriented tasks that led to an individual's expectation for success (Bandura, 1997). An individual's perceptions were considered to be the capacity of the organization and implementation of actions when

necessary to achieve a desired outcome or skill required for a specific task (Bandura, 1986). Self-efficacy was a component of the social cognitive theory that was influenced by (a) human thoughts; (b) motivations; and (c) actions. Self-efficacious individuals viewed themselves as: (a) self-organized; (b) proactive; (c) self-reflective; and (d) self-regulated with the capacity to influence their own destiny (Pajares, 2002).

The assumptions of learning held by the social cognitive theory were that humans engaged in the following behaviors: (a) reciprocal interactions; (b) enactive and vicarious learning; and (c) distinction between learning and performance. Reciprocal interactions explained human behavior in a framework of reciprocal interactions between (a) human factors; (b) environment variables; and (c) behavior. The interaction between the students' behavior and classroom environment was known to positively influence one another. In addition, the teachers' feedback affected students' self-efficacy beliefs (Bandura, 1997).

Enactive and vicarious learning explained that human learning occurred vicariously (Bandura, 1986). Enactive learning was the learning that occurred by the consequences of one's own actions. The behavior produced by positive consequences was maintained, whereas the behavior learned from negative consequences was abandoned. Vicarious learning was the learning that occurred without actions by simply observing or listening to models who were (a) live; (b) symbolic; or (c) nonhuman (e.g., television characters, printed materials, video games, and films) (Bandura, 1986).

Self-efficacy beliefs also had an effect on the individual's thought processing and emotional reactions to thoughts. For instance, high efficacious individuals demonstrate serenity when faced with difficult task and activities, whereas low efficacious individuals felt that

activities were more difficult than what they really were, which manifested signs of: (a) anxiety; (b) stress; (c) depression; and (d) low levels of creativity in how to problem solve (Pajares, 2002).

Learning and performance emphasized by social learning theory were two separate processes. Most learning occurred by observation rather than by actions. The learning that took place through observations would be transformed into performance in the presence of the following factors: (a) motivation; (b) interest; (c) incentives to perform; (d) perceived need; (e) physical state; (f) social pressure; and (g) type of competing activity.

The factors affecting performance were as follows: (a) developmental levels of the learner; (b) value and competence of the model; (c) goals; (d) outcome expectations; and (e) perceived self-efficacy (Bandura, 1997). Social cognitive theorists believed that self-efficacy was the key factor affecting self-regulation of learning (Bandura, 1986; Rosenthal & Bandura, 1978; Schunk & Zimmerman, 1986). Self-efficacy was the individual's belief concerning their personal ability to perform certain goal-oriented tasks, which led to the individual's expectations for success (Bandura, 1997).

Bandura (1997) posited that student's expectations for success were composed of two types: (a) efficacy; and (b) outcome. Efficacy expectations were formed on the grounds of whether or not an individual felt capable of executing the required behavior needed for success. On the other hand, the outcome expectation was concerned with the individual's beliefs that specific actions would lead to the desired outcomes.

Perceived self-efficacy "refers to beliefs in one's capacities to organize and execute the courses of action require to produce given attainments (Bandura, 1997, p.3). Measuring people's

perceived self-efficacy did not require measuring the skills individuals had to perform various tasks, rather it involved collecting information about the notions of what they could do with these skills in different conditions (Bandura, 1997). Schunk (1981) found that modeling affected students' perception of efficacy when an adult model demonstrated mathematical problem-solving methods. Students with a background of low mathematical achievement, who were modeled division operations, displayed significantly higher levels of self-efficacy during training and more accuracy after a posttest. In another study, Zimmerman (1985) reported that rewards for efficacy increased student's self-efficacy perceptions.

Miller (1995) proposed that appropriateness between self-efficacy assessment and the outcome were critical to predict the outcome (p.192). Consequently, the predictive value of an instrument decreased when the self-efficacy beliefs assessed were different to the critical task that was being compared. Green and Azevedo (2007) established that self-efficacy was a topic of research primarily investigated as a personal characteristic that varied by domain. High academic self-efficacy, on the other hand, was associated with (a) academic performance; (b) persistence; (c) self-regulatory strategies use; and (d) choice of task (Bandura, 1997; Finney & Schraw, 2003; Pintrich & De Groot, 1990; Schunk & Pajares, 2000; Stone, 2000).

Schunk and Zimmerman (1994) found a positive relationship between self-efficacy and academic achievement. When students were trained on self-efficacy beliefs, the academic achievement of the students also increased. Zimmerman (1997) described social cognitive assumptions occurring during the first stages of learning. While learning difficult tasks, students needed social regulations. Socially validated learning strategies were modeled and adopted as goals to guide self-directed and self-monitoring learning. Students made attempts to control personal resources that involved experiencing "gains in self-perceptions of efficacy and intrinsic

motivation" while further pursuing skillful learning (Zimmerman, 1997, p. 13). Robins, Lauver, Le, Davis, Carlstrom, and Langley (2004) conducted a meta-analysis that included 109 studies. The analysis corroborated that academic self-efficacy was the highest predictor of cumulative grade point average (GPA) and the second best predictor in regards to recommending retention in college students.

Bembenutty (2008) found that students' self-regulations related positively to (a) student achievement motivation; (b) cognitive strategies; and (c) academic performance. Zimmerman and Kitsantas (1997) corroborated the social cognitive assumption that students needed assistance (modeling) during the initial phases of learning complex skills in order to result in successful and effective self-regulated practices. Pajares (2002) reported that factors such as (a) economic conditions; (b) socioeconomic status; and (c) educational and familial structures were not likely to directly influence human actions. Human actions on the other hand, were affected by people's (a) hopes; (b) self-efficacy; (c) attitudes; (d) ways of life; and (e) emotions, as well as by other self-regulatory influences.

Barfield and Burlingame (1974) described teacher efficacy as being grounded in (a) psychology; (b) personality traits; and (c) educators' responses to particular situations. Student performance was related to factors such as (a) attitude; (b) aspirations; (c) motivation; and (d) engagement. Research on self-efficacy was geared towards student self-efficacy, as well as teacher self-efficacy and its relationship with academic achievement (Singh, Granvillle, & Dika, 2002).

The core of teacher efficacy constructs derived from the 1976 and 1977 Rand Foundation study on self-efficacy. Research on teacher self-efficacy determined that teacher efficacy was

dependent on eight dimensions which helped define teacher effectiveness based on the teacher's perspective towards: (a) sense of personal accomplishment; (b) positive expectations for both student behavior and achievement; (c) feeling of responsibility towards student learning; (d) strategies for achieving objectives; (e) positive outlook towards self, students and teaching; (f) sense of control; (g) common teacher and student goals; and (h) democratic decision making (Ashton, 1984)

Gibson and Dembo (1984) underlined that teachers with high sense of self-efficacy were confident, even with students who presented educational challenges. Consequently, teachers with low self-efficacy felt (a) discouraged; (b) unmotivated; (c) and (d) helpless. Teachers with a high sense of efficacy had a feeling of (a) personal accomplishment; (b) high expectations of students; (c) responsibility for the student learning gains; (d) strategies for objective attainment; and (e) confidence that teachers could positively impact student learning (Ashton, 1984). Pajares (2002) indicated that self-efficacy strongly affected human actions.

Teachers' beliefs were found to directly impact their instructional practices (Bandura, 1997). In addition, Lent, Brown, and Hackett (1994) stated that "the higher a person's perceived efficacy to fulfill educational requirements and occupational roles were, the wider the career options they seriously considered pursuing, and the greater the interest they had in how to better prepare themselves educationally."

Measurement of Self-Efficacy

Self-efficacy was examined and measured through indicators such as individual self reports. Bandura (1997) highlighted that measuring individuals' perceived self-efficacy did not require measuring the capacity of the individual to perform the task, rather it require collecting

information regarding the individual beliefs about the further application of the skills under different conditions. Moreover, when considering measuring the relationship between efficacy and a specific behavior, the self-efficacy beliefs measured had to be consistent with the specific behavior assessed, and vice-versa. Miller (1995) stressed that when self-efficacy beliefs were not specific, the predictive value of the instrument decreased. Recent research revealed that although students' self-efficacy beliefs influenced academic performance, the accuracy of the results was crucial to effective functioning and academic success (Bandura, 1997).

Ramdass and Zimmerman (2008) highlighted another concern that might occur when measuring self-efficacy. The researchers studied how teachers were required to monitor students' judgment of self-efficacy in order to provide successful instruction in math. Ramdass and Zimmerman (2008) explained that inaccuracies in judgments of self-efficacy emerged as a major problem for elementary and middle school students. The research examined how the teachers monitored students' self-efficacy judgments in addition to their mathematics learning. The sample population included fifth and sixth graders from a parochial school and a private afterschool program located in an urban Northeastern city in the U.S.

The researchers employed an experimental pre-test pos-test control group design. The participants were randomly assigned to either the experimental or control group and were administered the test in four phases that lasted 45 to 50 minutes. The phases included: (a) math pretest; (b) math performance; (c) self-efficacy; and (d) self-evaluation. The math pretest problems were scored using the Pajares and Miller's (1997) method of calculating accuracy and bias scores, similar to Likert-scale. Moreover, the math performance was calculated similarly to the pre-test scores. The internal reliability was .83 using the Cronbach alpha measures (Ramdass & Zimmerman, 2008).

Self-efficacy on the other hand, was measured using Bandura's (2006) guidelines where students self-reported their math ability, prior to solving the questionnaire on the post-test. The Cronbach alpha for internal reliability was .70. Finally, self-evaluation measures were obtained after the students solved the math problems on the posttest. The measures were adapted from Chen's (2003) self-evaluative scale.

The data was analyzed to determine the following dependent measures: (a) math performance; (b) self-efficacy; (c) self-evaluation accuracy; and (d) self-evaluation bias, by using a multivariate analysis of covariance (MANOVA). The results indicated that students who received strategy training in the experimental group displayed higher levels of: (a) math performance; (b) self-efficacy accuracy; and (c) self-evaluation accuracy. However, (a) self-efficacy bias; (b) self-evaluation bias; and (c) self-evaluation were significantly low (M=7.15). The results revealed that all variables had a significant correlation with math performance. Self-efficacy correlated in .49 (r=.49), as did self-evaluation with .60 (r=.60). Self-efficacy accuracy also correlated with math performance in .75 (r=.75) along with self-evaluation accuracy at .44 (r=.44) (Ramdass & Zimmerman, 2008)

Ramdass and Zimmerman (2008) noted that unrealistic low self-efficacy beliefs may have been responsible for the avoidance of difficult academic tasks, like math courses, instead of a lack of abilities or aptitude in the subject area. The assessment format students were provided with did not affect students' self-efficacy. However, the experimental group learned an additional strategy for self-correcting answers in contrast with the control group. Students in the experimental group surpassed the performance of the students in the control group in self-efficacy accuracy and math performance. "The students in the control group did not properly estimate their self-evaluative judgments of math performance. Teachers had the task of: (a)

identifying the inaccurate judgments and design; and (b) implementing appropriate interventions to change them" (Ramdass & Zimmerman, 2008, p. 7).

Chen (2003) pointed out similar concerns when studying teachers' self-efficacy issues. The study measured the levels of self-efficacy of pre-service teachers. The data revealed that pre-service teachers who reported higher levels of self-efficacy and used time and study environment management strategies exercised more effort in understanding the course materials, unlike the teachers with lower self-efficacy levels.

Acts and Legislations for Bilingual Education

The beginning of the struggles for equity in education began with the ruling of the U.S Supreme Court in *Brown v. Board of Education* (Court, 1954). The Supreme Court ruled "segregation of the schools to be unconstitutional, which changed the battles for civil rights in America" (Court, 1954). World War II uncovered the inadequacies of U.S foreign language instruction with providing the essential skills needed for (a) military, commercial, and diplomatic affairs; and (b) language, mathematics, and science (Ovando, 2003).

The National Defense Education Act, which was enacted in 1958, provided federal assistance to public and private schools in order to develop programs that would improve student achievement levels in: (a) science; (b) mathematics; (c) modern and foreign languages; (d) technical education; (e) geography; (f) English as a second language; (g) guidance and counseling; and (h) libraries and educational media centers (Encyclopedia, 2001). The act did not change linguistic traditions already established in the U.S. Consequently, the act encouraged monolingual students to study foreign languages at a great cost and students with a non-English background were instructed in English-only classrooms (Ovando, 2003).

The Civil Rights Act (1964)

The Civil Rights Act was placed into law by the U.S. Congress in 1964, "declaring discrimination on the basis of race, color, or national origin as unconstitutional" (U.S. Civil Rights 1972). The National Clearinghouse for English Language Acquisition (2006) argued that the important role of Title VI of the Civil Rights Act was to protect the educational rights of the language minority students in the U.S. The 1968 reauthorization by the Congress of the Elementary and Secondary Education Act (ESEA) (Title VII), also known as the Bilingual Education Act, was considered the most extensive and influential of all of the educational policies. The Act established federal goals to assist of minority and low income students of limited-English speaking skills with the rapid acquisition of English, by starting up bilingual education programs and limited participation in the new programs (Garcia, 2008). The ESEA act was created with the intention of assisting ELL students with the acquisition of the English language (Ovando, 2003).

Lau v. Nichols (1974)

The 1974 Supreme Court case *Lau v. Nichols* played an important role in the education of ELL students (Ovando, 2003). Schools in San Francisco, California were not providing assistance to Chinese-speaking students who had limited English proficiency. The act denied the students equal opportunities to learn. The Supreme Court ruled that the civil rights of students who did not understand the language of instruction was violated (*Lau v. Nichols*, 414, U.S. 563, 1974). The decision was one of the most enduring legal symbols of the civil rights of language-minority students (Baker & Jones, 1998; Hakuta, 1998; Lyons, 1990; & Ovando & Collier, 1998). In the case of *Lau vs. Nichols* (1974), Justice Douglas stated:

> There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education…Basic skills are at the very core of what these public schools teach. Imposition of requirement that, before a child can effectively participate in the educational program, he must already have acquired those basic skills is to make a mockery of public education. We know that those who do not understand English are certain to find their classroom experiences wholly incomprehensible and in no way meaningful. (p. 3)

Although the ruling did not impose any particular guidelines for schools, the *Lau v. Nichols* verdict eliminated the *sink-or-swim* methods of education for ELL and led to the passing of the Equal Education Opportunities Act in 1974 (Ovando, 2003). In 1975, the Office for Civil Rights and the Department of Health, Education, and Welfare issued a document known as "The *Lau* Remedies," which served as a basis for assisting school systems with providing guidance in identifying students with LEP by assessing language ability and appropriate programs (Diaz, 2001).

Bilingual Education Act (1974)

The reauthorization of the Bilingual Education Act provided assistance to students of any socioeconomic status with Limited English Speaking Ability (LESA). The 1978 reauthorization of the act was even more extensive, including assistance for the limited English-speaking students and the Limited English Proficiency (LEP) students. The law protected the rights of students, which was to secure services to those who were in need of assistance. For the first

time, the law ensured the educational civil rights of the ELL students and allowed the students to receive instruction in the native language (Baker & Hakuta, 1997).

Crawford (2000a) argued that all the efforts made to improve the education of ELL were ambiguous. Consequently, federal funds that were provided to the schools under the Bilingual Education Act were used to provide English-only assistance (Crawford, 1999). Despite the discrepancies, the Bilingual Education Act allowed ELL students to build upon students' (a) home cultures; (b) languages; (c) prior experiences; and (d) learning content, without first reaching proficiency in the English language (Ovando, 2003).

Plyler v. Doe (1975)

The court case of *Plyler vs. Doe* (1975) was concerned with the education of children who had not entered legally into the U.S. territory and the case triggered revisions to the educational laws in Texas in 1975. The U.S. Supreme Court found that the policy violated the Fourteenth Amendment, which protected all individuals from discrimination. The law discriminated against the illegal immigrant children and prevented the children from receiving an education (U.S. Supreme Court, 1982).

Rios v. Read (1978)

The Federal District Court of the Eastern District of New York found that Pastchogue-Medford denied equal educational opportunities to ELL students who were not receiving additional education in Spanish. The case of *Rios vs. Read* (1978) brought about new changes in the types of testing measurements for ELL students. The law mandated that states provide proper assessment tools to identify ELL students though valid testing. In addition, the ELL

programs were required to be monitored and exiting from the programs took place through exit evaluations (U.S Justice Department, 1978).

Castañeda v. Pickard (1978)

The case of *Castañeda v. Pickard* (1978) was filed against the Raymondville Independent School District (RISD) in Texas on the grounds of discrimination. The children from Castañeda were not receiving the educational opportunities that would allow language development; and the students experienced discriminatory treatment in the classroom. The RISD failed to provide sufficient bilingual educational programs that would have assisted the children from Castañeda in learning the English language and assisting them with participating in classroom activities (U.S. Court Appeal., 1981).

The decision issued by The Fifth Circuit Court concerning the education of ELL students and the adequacy of the district's program was measured on whether or not the programs were based on following criteria: (a) an educational theory recognized by experts in the field or considered by experts as a legitimate experimental strategy; (b) programs and practices that included resources and personnel, which were resonably calculated to implement the theory effectively; and (c) school districts evaluations of the programs that alotted for adjustments where needed to ensure language barriers were actually being overcome (U.S. Court of Appeal, 1981).

The *Castañeda vs. Pickard* case formulated basic standards in the education of ELL students to determine compliance with the Equal Education Opportunity Act (EEOA) of 1974. The standards included that schools abide by the following criteria: (a) the implementation of sound theory-based programs or valid experimental strategies; (b) the educational programs with

instructional practices, resources, and personnel prepared to be able to transfer theory to practice; and (c) the discontinuation of programs that failed to produce results (U.S. Court of Appeal, 1981).

Reauthorization of the Bilingual Education Act

The 1980's brought about a different perspective to the Bilingual Education Act and the education of ELL students. The Emergency Immigrant Education Act (EIEA) enacted in 1984 had the purpose of assisting local education agencies (LEA) with the influx of newcomer students. The act provided assistance to non-bilingual programs or programs using English only for the English language learners' education. In 1988, the act limited student's participation to a three-year limit requiring the schools move the students from ELL to fluency in the English language. The act also provided more incentives to English only education. However, the 1994 reauthorization of the ESEA provided more emphasis to two-way bilingual education programs, eliminating the English only incentive (Garcia, 2008).

No Child Left Behind Act (2001)

The latest period in the evolution of the ESEA was the reauthorization in 2001. The ESEA wave went from bilingual education to an English-only approach. The former ESEA was transformed into the No Child Left Behind Act (2001).

The enactment of the NCLB Act by President George W. Bush in 2001 reauthorized the Elementary and Secondary Education Act of 1965 (ESEA) and allowed the federal government to scrutinize each state's ability to provide quality education to public school children, as well as close the achievement gap among minority students from low socioeconomic backgrounds and their peers (NCLB Executive Summary, 2001).

The NCLB Act required all states to implement "challenging student achievement curriculums to meet states standards. The goal was to provide literacy to all students by the 2013-14 school year (U.S. Department of Education, 2002). The purpose of Title III of the NCLB under the title of Language Instruction for Limited English Proficient (LEP) and Immigrant Students was to assist all LEP children, including immigrant children and youth, with achieving English proficiency level (Crawford, 2002).

English language learners were scrutinized under the NCLB Act. Consequently, the schools were mandated to focus on the academic progress of the ELL population and English proficiency (Capps et al., 2005). Moreover, the NCLB Act, through its Title I category ensured funding for low socioeconomic students, while Title III guaranteed funding for all ELL students. The funding was based on the results of state assessment examinations, which meant that if schools failed to demonstrate progress, the schools would be subject to a "school in need of improvement" (SINI) designation.

Some of the improvement remedies included after-school tutoring and providing other supplemental services. Parents of the students attending SINI schools were permitted to send their children to a non-SINI school in the same school district. Under the denomination of SINI schools, educational instructions were expected to improve school performance within a year. After a year of low performance, the schools with the label would be restructured or possibly closed (U.S. Department of Education, 2002).

The NCLB Act placed more pressure on school districts to reclassify ELL as FEP. The drastic reclassification encompassed a high level of pressure for students and teachers, since students were expected to boost academic achievement in subject-area content classes (Lesaux,

2006). Surprisingly, the annual reclassification did not provide clear indicators about the length of time needed for each ELL student to be reclassified as FEP after entering the school system (Grissom, 2004). Contrary to the notion that ELL students learned English in a very short time, researchers in language development had reported differently. Hakuta, Butler, and Witt (2000) revealed that English oral proficiency took from 3 to 5 years, whereas academic proficiency took from 4 to 7 years to develop.

Underperforming schools were subject to severe sanctions (Wright, 2006). Some of the sanctions included: (a) replacing educational staff and administration; (b) implementing a new curriculum; (c) minimizing the authority of the decision makers; and (d) restructuring the internal organization of the school (U.S. Department of Education, 2002). The maximum sanction included the privatization of the school or appropriation by the state (Wright, 2006).

The ELL students under Title III were required to meet three annual measurable achievement objectives (AMO): (a) make annual progress; (b) attain English proficiency; and (c) meet AYP required by the state standard assessment. However, schools and school districts that failed to meet the requirements of the act for two consecutive years were forced to develop a plan for improvement. Schools that did not achieve the progress according to AMO for four consecutive years would receive severe sanctions, including the removal of Title III funds (NCLB, 2002).

The 3rd grade students who failed to demonstrate competency on the state assessments were retained and 10th grade students would not receive a high school diploma until they passed the test (U.S Department of Education, 2002). Reading and math AYP proficiency goals for all students increased yearly with the goal of having all students performing at 100% by the year

2014. A study conducted to assess the impact of language and high-stakes testing policies in elementary schools in Arizona indicated that although some improvements had been attained, all the students (subgroups) were not performing at the level expected to meet the required level of proficiency. Furthermore, the researchers argued whether the policies were causing more negative impact than good, specifically to ELL students (Wright, 2006).

According to the Nation's Report Card (2007), the proficiency level in mathematics of fourth graders was 51% for Whites students, 15% for Blacks students, 22% for Hispanics students, Student with Disabilities (SD) 19%, and 6% for ELL students. The schools under the NCLB Act receiving federal assistance were deemed to meet AYP in reading and mathematics for all students including ELL by 2014. However, the accountability system failed to distinguish the schools in which the ELL students were making progress from those that were not (Crawford, 2004).

According to the National Association for Bilingual Education (NABE) (2000), the NCLB Act failed to provide the kind of education that would benefit ELL students. The set of regulations required by the NCLB placed a great deal of pressure on the states to achieve academic and English proficiency with ELL students (Garcia, 2008). Linn (2005) stressed that when high stakes assessments were attached to school results, the states were ambivalent about whether or not the practice had any benefits for the students and the schools.

Reauthorization of the No Child Left Behind Act (2010)

On March 13, 2010, the U.S. Department of Education released a proposal to revise the Elementary and Secondary Education Act (ESEA), also known as NCLB (U.S. Department of Education, 2010). According to Duncan (2010), the U.S. Secretary of Education, the major

problem with the current version of the NCLB was that it did not offer encouragement for high learning standards. Low standards also contributed to the current high school dropout trend in the nation to 40%, which limited the percentage of students who graduated from two-year or four-year colleges (Duncan, 2010).

The U.S. Department of Education released the reauthorization of the ESEA know as "A Blue Print for Reform". The three main goals of the reauthorization are: (a) to raise standards using new generation of assessments that are in alignment with college-career standards; (b) to provide incentives for excellence and growth to improve student learning by recruiting, retaining promoting and rewarding effective teachers and principals; and (c) to increase state and district control in order to maintain the focus on equity and narrowing the achievement gaps (U.S. Department of Education, 2010). The goals were in alignment with President Obama's goals to ensure that America would be in a leading position in the world in college graduation rates by 2020, as well as all students succeeding in college and the workplace.

State of Florida Senate Bill 6

The State of Florida House of Representatives and Senate (2010) recently passed a legislation affecting teachers and school personnel. Even though the bill was vetoed by the governor, the bill revised statutory provisions as follows: (a) performance appraisals; (b) compensation; (c) contracts; (d) teacher quality accountability; and (e) educator certification and preparation.

The new bill proposed that school districts must implement performance appraisals for instructional personnel and school administrators that distinguished four levels of performance: (a) unsatisfactory; (b) needs improvement; (c) effective; and (d) highly effective. In addition,

effective, July 1, 2014, the teachers' performance appraisal would be based upon students' performance on the existing statewide assessments. In reference to compensation, the bill stated that school districts would adopt salary rates that could exclusively compensate educators based upon performance appraisals, prohibiting the use of years in the profession or any advanced degrees in establishing the salary rates. The Florida Education Association (FEA) (2010) indicated that the enactment of this bill into a law would motivate experienced teachers to leave the classrooms and would place students in classrooms with teachers of little experience. In the future, similar legislation could continue to be enacted with similar provisions. The passing of similar laws could negatively impact the education of ELL students. Grigorenko, Meier, Lipka, Mohatt, Yanez, and Sternberg (2004) emphasized that inexperienced teachers often failed to identify the distinctive forms of intelligence and adaptive knowledge of ELL students. Often, novice teachers did not provide the scaffolding that students needed to foster further learning in order to achieve a high quality education.

During the past few decades, the trend in education had been focused on transforming education into a business portfolio model (Gibbs, 2002). The driving force behind the idea was to change education into a wealth creation business that would be profitable when students performed well, with the idea of wealth being created (Gibbs, 2000). Harker, Gibbs, Ryan, Weir, and Adam (2000) found that teachers had been negatively affected the most from the radical reforms in education. The study also found that nearly 60% of teachers (a) felt unprepared to perform their job; (b) experienced high levels of stress; and (c) encountered an overall lack of well-being.

Supporting Literature

The supporting literature included a (a) review of the educational performance of ELL students in American schools; (b) learning strategies; (c) learning styles; (d) cognitive styles; (e) high stakes testing; (f) equity issues; and (g) teachers' preparedness, as it related to the instruction of ELL students.

Types of Educational Programs

States and schools districts in the U.S had long-established bilingual education programs with the assistance at times of the federal government (Lopez & Mora, 1998). While the majority of the bilingual programs were founded by state and local levels, the determining force was through the Bilingual Education Act that the federal government enacted (U.S. Department of Education, 1992).

Crawford (2004) classified six main programs to assist with the education of ELL or emergent bilingual students. The first model was known as the submersion or "sink or swim" method, for which ELL students received the same educational programs as the English native speaker students. The model did not provide any alternatives to the education of the ELL students in their home language. The second approach was called the pull-out English as a second language program. Some assistance was provided to the students out of the homeroom classrooms, where instruction was provided in the ELL students' native language and teachers were ESOL certified. English immersion, also known as sheltered English or content-based ESL (ELL), was a third type of program that provided more support to the ELL students than the previous approaches, yet the instruction was only in English.

Transitional bilingual education (early exit) was the fourth approach. The approach consisted of a bilingual program with more focus on the native language. Students received 10-50% of instructional time in their home language, focusing on rapid English acquisition. The fifth approach was called the developmental bilingual education (late exit), which encompassed the development of both English and the ELL native language. Finally, the sixth approach was a two-way bilingual education (also known as two-way dual language, two-way immersion, or dual immersion) and focused on developing fluency in both English and the native language in the classroom. The approach was used with both native English speakers and ELL students who were considered bilingual after emerging from the program.

Moughamian, Rivera, and Francis (2009) recommended the following decision points for educators to determine the best instructional models, programs, and practices for ELL students: (a) the number of years the student had lived in the U.S; (b) language resources available to the student's home and community; (c) print materials available in and out of the school and language; (d) type of prior schooling the student received; (e) student's level of education in the content area; (f) available assessment and language of the assessment; (g) instructional resources available to the school; (h) teachers' level of experience working with ELL students; and (i) school attitudes regarding bilingualism, the use of research-based programs, and the effectiveness of the programs.

Sanchez Sadek (2004) suggested that when pull-out programs were not properly coordinated with the mainstream classroom teachers, students participating could miss valuable information regarding the English language learning. Pull-out programs were beneficial for (a) newcomer students, with little or not English abilities; (b) ELL students older than their grade level peers; and (c) students who were at risk of dropout (Review of ESL Report, 2006).

A summary of studies conducted by The Center for Research on Education, Research and Excellence (1998) reported that bilingual educational programs were more effective than other programs for ELL students. Thomas & Collier (1997) also discovered similar findings. The researchers conducted a longitudinal study that compared data from 1982 to 1996 with the focal point on ELL achievement from Grades K-12. The data was collected from five large school districts in the United States enrolling 700,000 language minority students.

Thomas and Collier (1997) reported that ELL students who were receiving bilingual instruction completed school with average scores, which ranked at the median scores or above the 50th national percentile in all subject areas. ELL students, who were enrolled in ESL (ELL)-pullout instruction, although well implemented, finished school (if they stayed until graduation) with scores between the 10th and 18th national percentile.

Thomas & Collier (2002) also revealed that the performance of ELL students, in reading and math immersed in English mainstream classrooms, was significantly lower by Grade 5, which was the equivalent of 30 percentile of a standard deviation below national norms. In comparison, the ELL students who were receiving Bilingual/ESOL services, scored significantly higher. The dropout rate was significantly high in the ELL group with students' scores in the 11th grade at 12th percentile on reading tests (Thomas & Collier, 2002).

The proficiency levels of ELL students in reading and math were higher when students were receiving a transitional bilingual education. The ELL students received fifty percent instruction in English and fifty percent instruction in Spanish for 3-4 years. At the end of the period, the students were immersed in mainstream classrooms. Students at the end of 11th grade scored in the 45th percentile by the end of the year (Thomas & Collier, 2002). One-way

developmental bilingual education reported students scoring at the 72nd percentile on the same national study. ELL students, who were mainstreamed in regular English classrooms after having received 4 years of bilingual education, achieved scores above grade level in reading and math (Thomas & Collier, 2002).

The findings of the study were intended to answer the questions of policymakers and the government as to how to educate ELL students who were currently undereducated. The projections of the ELL population growth indicated that by the year 2030 they would comprise 40% of the school age student population in the United States (Thomas & Collier, 2002). ELL students scored below proficiency levels in both reading and mathematics, compared to other demographic groups in states like Arizona, California, Florida, New York, and Texas, which were responsible for the education of approximately 70% of the nation's ELL students (Fry, 2008).

Although there were several factors contributing to ELL students' success, the researchers identified more specific factors such as: (a) the lack of a meaningful education; (b) proper professional development and support by educators; (c) a school environment allowing natural language; and (d) academic and cognitive development. Advocates of monolingual English instruction favored English immersion as the most efficient method of incorporating ELL students into an English speaking society (Lopez & Mora, 1998). In addition, the researchers argued that despite the theoretical benefits of bilingual education programs, the programs lacked effectiveness when taken into practice (Glenn, 1997; Headden, 1995; & Mora, 1997). Among factors that hindered the success of bilingual education were that many teachers did not receive proper training in how to educate ELL students, and many had to educate

students that came from different language homes outside the realm of bilingual education (Lopez & Mora, 1998).

Learning Strategies for ELL Students

The strategies used by ELL students were different. Each learner employed his or her own set of skills due to the following factors: (a) degree of awareness; (b) stage of learning; (c) task requirements; (d) teacher expectations; (e) age; (f) sex; (g) nationality/ethnicity; (h) general learning style; (i) personality traits; (j) motivation level; and (k) purpose for learning the language (Chamot & El-Dinary, 1999; Green & Oxford, 1995; Oxford, 1990). Learning strategies of ELL were self-reported strategies used by language learners of different languages that were unique for each learner (Chamot, 2004). Researchers collected different types of learning styles of ELL students through questionnaires. Oxford (1990) developed the Strategy Inventory for Language Learning (SILL) which had been used to collect data from a large number of foreign language learners. The instrument was also used to determine (a) learning styles; (b) gender; (c) proficiency level; and (d) culture (Bedell & Oxford, 1996; Chamot, 2004; and Green & Oxford, 1995).

The two main learning strategies for teaching ELL students were identified by O'Malley & Chamot (1995) and consisted of (a) the uninformed strategy (referred as to working without real information of the name of the activity taking place); and (b) direct and integrated instruction (the learners were informed of the value and purpose of the learning strategies). The direct and integrated learning strategies approach provided (a) student feedback; (b) help with becoming aware of the learning process; and (c) the benefits of using a particular strategy (Sherow, 2006). Researchers on second language content stressed the importance of using an

explicit learning strategy when instructing ELL students (O'Malley & Chamot, 1990; Oxford & Leaver, 1996; Shen, 2003). Explicit learning strategy instruction involved (a) making students aware of the strategies used; (b) teacher modeling of the strategy; (c) thinking and practicing with new strategies; (d) student self-evaluation of the strategies used; and (e) practice with transferring learning to new tasks (Chamot, 2004).

O'Malley, Chamot, Stewner-Manzanares, Russo and Kupper (1985) claimed that learning strategies of successful language learners, after being identified, could be used as a guide for teaching less successful students and positively impact second language acquisition. Many models for teaching learning strategies had been developed for both first language and second language contexts. The instructional models included similar features, such as the importance of developing students' metacognitive learning strategies, and suggesting that teachers assisted students by demonstrating and modeling the strategies. Chamot (2004) identified the following three main models used in second language instruction: (a) the Cognitive Academic Language Learning Approach (CALLA) model; (b) the Grenfell and Harris model; and (c) the Cohen model.

- The CALLA Model was considered a recursive approach that allowed teachers and students the option to revisit prior instructional phases as needed. The model included six steps: (a) preparation; (b) presentation; (c) practice; (d) self-evaluation; (e) expansion; and (f) assessment.

- The Grenfell and Harris Model was a cycle of the six steps strategy: (a) awareness raising; (b) modeling; (c) general practice; (d) action planning; (e) focused practice; and (f) evaluation.

- The Cohen Model used teachers taking various roles to help students and provided them with learning strategies that were appropriate to students' individual learning styles.

The language of instruction had been the topic of many research studies on second language learners. Learning strategies had always been taught in the students' native language. Chamot (2004) indicated that in second language contexts, students at the beginning levels of second language acquisition did not comprehend learning strategy explanations in the target language. Chamot (2004) agreed that learning strategy instruction should be taught to beginner students, instead of postponing it until intermediate or advanced level courses because "beginners also need strategies that can make their language learning more successful and increase the motivation for further study" (Chamot, 2004, p. 9). A study conducted by Cunningham Florez (2000) on the beginning levels of proficiency in second language learners investigated the use of learning strategies that were provided in the native language.

Learning Styles

Keefe (1979a) defined learning styles as "cognitive, affective, and physiological traits that were relatively stable indicators of how learners perceive, interact with, and respond to the learning environment" (p.4). Felder and Silverman (1988) suggested that learning involved an educational setting that distinguished a two-step process: (a) reception; and (b) processing of the information. Chamot (2004) described learning styles as conscious actions that learners put into practice in order to achieve learning goals.

Researchers of Second Language Acquisition stressed the significance of individual learning styles. Diaz (2001) argued that the view focusing on learning styles anticipated a promising future for the education of our multicultural student population. The tendency;

however, was to overlook the different learning styles and to disregard the value of learning (Hadley, 2001).

Felder and Silverman (1988) distinguished five sets of learning styles as follows: (a) sensory vs. intuitive; (b) visual vs. auditory; (c) inductive vs. deductive; (d) active vs. reflective; and (e) sequential vs. global. Sensory individuals preferred (a) facts; (b) data; and (c) experimentation but were slow in translating data into words. Intuitors, on the other hand, preferred problem solving and innovation, yet disliked repetition. Visual learners remembered best through (a) pictures; (b) diagrams; (c) flow charts; (d) time lines; (e) films; and (f) demonstrations. Auditory learners, on the other hand, (a) remembered what they hear; (b) preferred discussions; (c) excelled in verbal and visual demonstrations; and (d) learned better by explaining facts to others.

The style-based approach of teaching provided students with specific tools for learning and encouraged them to take ownership and responsibility for their own learning. In addition, teachers became more aware of the richness and diversity that students brought to the classroom. Educators need to become familiar with the main norms and values existing with the minority cultures that were crucial for the success or failure of students. Different learning styles allowed teachers to design multiple strategies and methods that were meaningful to all students, within groups and individually (Sims, 2006). When teachers ignored or were not aware of the students' learning styles, the students (a) became bored and distracted in class; (b) performed poorly on exams; and (c) become disruptive and dropped out of school (Sims, 2006). The literature suggested that the highest learning took place when teachers' instructional style was matched to the specific strengths of the learner's cognitive style (Sims, 2006).

Mezoff (1982) stressed that the difference in cognitive styles affected the differential effectiveness of a large number of educational programs. In addition, Wooldrigdge (1995) described field dependent as individuals with: (a) short attention spans; (b) easily distracted; (c) dependence on social cues and structure from the environment; (c) less achievement orientation; (d) less competitiveness; and (e) higher need for structured environments regarding objectives and planned activities that field independent individuals. Claxton and Murrell (1987) suggested that when the student's learning style was identified and provided with the appropriate instruction specific to the learning styles, effective learning occurred. Bertini (1986) reported that field-dependent and field independent teachers exhibited different teaching preferences in alignment with teachers' own particular styles.

Sims (1995) stressed that all the research conducted on teaching and learning revealed that students needed a broad range of learning situations and opportunities to apply the concepts taught to the real life situations in contextual experiences. Learning styles of ELL student were a determining factor for language acquisition (Oxford, 1995). Irvine and York (1995) stated that research on learning styles had major implications for enhancing the academic achievement of culturally diverse students.

The National Task Force on Learning Style and Brain Behavior in 1983 defined learning styles as the steady pattern of behavior and actions by which individuals approached educational experiences (Diaz, 2001). Individual differences had significant effects on learners' behavior (Riding, 1998). The individual differences were based on two models: (a) the wholistic-analytic dimension; and (b) the verbalizer-imagery dimension. Claxton and Murrell (1987) recommended adopting the following learning strategies: (a) conducting professional development activities; (b) using learning styles; (c) enhancing the teaching of student's

development functions; and (d) promoting classroom research and collecting data about students' learning styles. The unique qualities that each student brought to the classroom presented a major challenge in reaching diverse groups of students.

Cohen (1969) identified two learning styles: (a) analytical; and (b) relational. The schools preferred the analytical style, which described how students organized information, whereas the relational style referred to the growth of information acquired by the students. Hale (1982) argued that students who did not develop the required analytical skills at an early age in school would become pervasive poor achievers as they moved on to higher levels. In public schools, both the analytical and relational learning styles were measured by standardized tests. However, many students from diverse backgrounds entered the schools with a relational learning style (Hale, 1982).

The experiential learning theory (ELT) pointed out two similar modes of depicting experiences: (a) apprehension or concrete experience; and (b) comprehension or abstract conceptualization. The ELT model also depicted two dialectically related styles of transformation experience, (intension or reflective observation, and extension or active experimentation (Baker, Jensen, & Kolb, 2005). Kolb's ELT "emphasized the central role that experience played in the learning process, the process where knowledge was created through the transformation of experience" (Kolb, 1984, p 4). The theoretical foundation was based upon the experimental work on learning and the development of Dewey (1958); Freire (1970); James (1890); Lewin (1936); and Piaget (1966). Kolb's model (1984) of learning was consistent with what was known about how people (a) learn; (b) grow; and (c) develop.

Cooper-Shaw (1996) recognized three dimensions of learning styles: (a) the conceptual dimension, which referred to the cognitive aspects of information or task learning; (b) the perceptual dimension that included the preferred modes of learning (visual, auditory, and kinesthetic or tactile); and (c) the social dimensions, which referred to the social context in which learning occurred (alone or in groups). Furthermore, Reid (1987) found that the learning style most commonly used by ELL students was the kinesthetic learning style. Kinesthetic intelligence was described by Gardner (1977) as the capacity to utilize the entire body or parts of the body to express ideas and feelings to solve problems.

The development of the multiple intelligence theory by Gardner (1993) provided extensive explanation regarding students' way of learning (Diaz, 2001). The theory of multiple intelligence regarding ELL students and minority students conceived that: (a) all students were provided the ability to learn; (b) there was evidence that tore down the preconceived notion of one single intelligence; and (c) teachers were aware of the need to create opportunities for all students with different learning styles (Gardner, 1993).

Dunn and Dunn (1993) identified other factors that hindered students' ability to learn including: (a) the direct environment (sound, light, temperature, furniture/seating designs); (b) the individual's emotionality (motivation, persistence, responsibility, conformity vs. nonconformity, need for externally imposed structure, opportunity to do things their own way); (c) the sociological preferences (learning alone, in a pair, in a small group, as part of a team, with an authoritative or collegial adult, wanting variety as opposed to patterns and routines); (d) psychological characteristics (perceptual strengths, time-of-day energy levels, need for intake, mobility while learning); and (e) processing tendencies (global, analytic, right/left, and impulsive/reflective).

Studies conducted by Green & Oxford (1995); O'Malley & Chamot (1990); Wharton, (2000); and Chamot (2004) on language learning styles indicated that the more proficient language learners were, the better the learners used language learning strategies. Researchers indicated that learning a language involved the self-concept in such a specific way that this had not been observed in other disciplines, and the anxiety related to language situations was believed to be a specific language anxiety (Gardner & MacIntyre, 1993; Hauck & Hurd, 2005; Horwitz, Horwitz & Cope, 1986, 1991). White (1995) stressed the challenging situations and advantages of distance learning, which White believed enhanced students' (a) self-concepts; (b) goal assessments; (c) self-direction; and (d) levels of metacognitive strategies.

The increasing demands for accountability and assessment in education and the fast growing minority students' population in American schools have changed the dynamics of the teaching profession and have encouraged many to search for new ways to improve their teaching strategies (Sims, 2006). Teachers have been held accountable, as never before, for providing indicators of the quality of instruction that teachers provided to the students. Knowledge of learning styles and effective teaching strategies that contributed to student achievement needed to become the number one priority for K-12 (Sims, 2006).

Cognitive Styles

Cognitive styles was described as the constant and lasting ways in which individuals cognitively processed their own thought and function (Ausubel, Novak, and Hanesian, 1978). The different ways in which humans processed their thinking was referred to as cognitive styles (Riding, Glass, and Douglas, 1993). Tennant (1988) defined cognitive styles as the individual's characteristics and the approach as to how to organize and process information. Cognitive styles

were considered to be a rather fixed attribute of an individual. In contrast, learning strategies were perceived to be alternatives for coping with situations and tasks (Riding, Glass, and Douglas, 1993). Some researchers used the term "learning styles" (e.g., Honey & Mumford, 1982; Kolb, 1976; Schmeck, 1988), and other referred it as "cognitive styles" (e.g., Allinson & Hayes, 1996); Riding & Cheema, 1991).

Riding and Cheema (1991) suggested that cognitive styles could be grouped in two main cognitive style groups: (a) wholistic-analytic, and (b) verbal-imagery. Riding, Glass, and Douglas (1993) concluded that the wholistic-analytic style was when individuals had the tendency to process information as wholes or parts. Wholistic thinkers were able to process their own ideas in a global context. Analytic learners were individuals who collected the information in parts, concentrating on some of the parts at a time (Riding, Glass, & Douglas, 1993).

The verbal-imagery style was the representation of the information processed by an individual in verbal or mental images. Verbalisers processed ideas and thoughts in words or verbal associations. Imagers, however; read, listened to, and processed information in frequent mental pictures, while associating the information with their representations (Riding, Glass, & Douglas, 1993).

Wholistic-analytic family of cognitive styles included: (a) field dependence/independence (Witkin, 1962); Impulsivity-Reflectivity (Kagan, 1965); holistic-serialist (Park, 1972); leveller-sharpener (Holzman & Kline, 1954; simultaneous-successive (Das, 1988); diverging-converging (Hudson, 1966); wholistic-analytic (Riding & Buckle, 1990; Riding, 1991). The Verbal-Imagery family of cognitive styles included: (a) sensory modality preference (Barlett, 1932); (b)

verbaliser-imager (Riding & Taylor, 1976); and (c) verbaliser-visualiser (Richardson, 1977) (Riding, Glass, & Douglas, 1993).

Research in cognitive styles was conducted to investigate the relationship of various concepts, such as (a) personality (e.g.,Gryskievicz & Tullar, 1995; Kirton & De Ciantis, 1986); (b) motivation (e.g., Martinsen, 1994); (c) occupation (e.g., Allinson, Chell, & Hayes, 2000); (d) creativity (e.g., Al-Sabaty & Davis 1989; and (e) problem-solving (e.g., Hammerschmidt, 1996). Individual differences in cognitive styles manifested by the research results affected (a) learning; (b) decision making; (c) communication; and (d) information processing in substantial ways (Van Den Broeck, Vanderheyden, & Cools, 2003).

Hayes and Allinson (1998) conducted a study suggesting "the possibility that people would learn and perform best in situations where the information-processing requirements of the situation matched the student's cognitive style or preferred approach to processing information" (p. 851). However; Streufert and Nogami (1989) indicated the possibility that information processing and individuals' behavior were inconsistent with the student's natural style of learning. Consequently, researchers deemed it necessary to investigate whether cognitive styles could change over time or situations. Riding and Cheema (1991) determined three views of cognitive styles as: (a) structure, (b) process; and (c) both structure and process.

Streufert and Nogami (1989) underlined cognitive styles as a determinant factor that explained the reasons why people are able to respond appropriately when dealing with various situations. Therefore, people with similar abilities, knowledge, and skills perform differently. Edgley (1992) stated that knowing cognitive styles was crucial to understand diverse populations, building on their strengths and to balance their weakness.

Van Den Broeck, Vanderheyden, and Cools (2003) explored another concern that could arise when measuring cognitive styles. The researchers studied the relationship between cognitive styles and values among a sample population that was comprised of Belgian citizens who ranged from twenty to fifty five years old. "They explained that conservative individuals revealed the strongest correlation with the planning style, whereas, the knowing style was the weakest, and the holistic style was negatively correlated" (p.12). The researchers noticed a significant association between cognitive style and social commitment. The results indicated that analytic individual were more conservative and the holistic showed a preference for change. The holistic individuals favored new ideas and possibilities, whereas analytic people favored the status quo. Individuals with the knowing style lacked creative solutions and stayed within known boundaries. The planning style individuals exhibited difficulties coping with change (Van Den Broeck, Vanderheyden, and Cools, 2003.

The relevance of the study was to demonstrate the importance of cognitive style differences. Talbot (1989) indicated that the difference in cognitive styles significantly influence one-on-one and team interactions in the work environment. The knowledge of cognitive styles fostered a stronger job selection and placement, where people felt confident about work and performed higher (Van Den Broeck, Vanderheyden, and Cools, 2003).

During the past 30 years, research on student learning and achievement has consistently focused on the areas of (a) cognitive strategies; (b) metacognition; (c) motivation; and (d) task engagement in the classrooms (Paris, 1987; Zimmerman, 1990; Brophy, 1999; Wentzel & Berndt, 1999). Research development led to the experimental implementation of strategies in classroom programs. Weinstein and Mayer (1986) grouped learning strategies in the following

categories: (a) rehearsal strategies; (b) elaboration strategies; (c) organization strategies; (d) comprehension monitoring strategies; and (e) affective strategies.

Teachers' Instruction

Paris (2001) stressed that during the 1980's research on the issue of strategies in the classrooms increased in number and variety and in four different ways. First, metacognition was included in research on strategies. Consequently, training included explanations and usefulness of the strategy. Second, cognitive dimensions of learning incorporated motivation and emotion, as part of the dimensions and learning became functional and fun filled. Third, strategies were incorporated in specific subjects. Alexander (1995) asserted that research on strategies began with reading in the 1970s and was then applied to (a) mathematics; (b) science; and (c) social studies after researchers found different frameworks for the organization of knowledge. The fourth strategy was that research moved from laboratories into the classrooms. Researchers wanted to deepen knowledge about learning strategies and effectiveness of the practices in the regular curricula (Paris, 2001).

Specific instructional strategies provided by teachers have been well documented. For instance, Paris and Paris (2001) depicted an overview of the way teachers could (a) deliver instruction; (b) promote strategic reading and writing lessons; (c) incorporate elements to assist students with pre-reading; (d) make inferences; and (d) self-monitor. Instruction in pre-writing and pre-reading strategies had consistently been related to positive outcomes in elementary school children (Presley, Johnson, Symons, McGoldrick, & Kurita, 1989). Inference was a key strategy that children were taught to use when reading to elaborate meaning from the text (Paris, 2001).

The research focused on training students to (a) become strategic readers; (b) make students become aware of the value of using strategies that were attributed to success; and (c) help students use and monitor the appropriate strategies (Presley, 1990). Sixth-grade students struggling in writing were taught the role of executive control strategies and revising processes. Students learned to manage and coordinate plans and decisions affecting their revising behavior (Graham, 1997).

Research studies of Bohn, Roehrig, and Pressley (2004); Dolezal, Mohan, Pressley, and Vincent (2003); Paris and Paris (2001); Perry et al. (2002); and Perry et al. (2004) revealed that students were more engaged in learning when teachers actively employed the following: (a) encouragement; (b) motivation; (c) manifestation of higher expectations; (d) provided positive and negative feedback; and (e) encouraged student collaboration. Teachers and school districts interested in eliminating the existing achievement gap among student groups considered making learning styles an essential part of the teaching-learning process (Sims, 2006).

Marzano et. al. (2001) concluded that effective teaching involved three important areas developed by teachers: (a) instructional strategies; (b) management techniques; and (c) curriculum. Furthermore, educators influenced instruction in a subtle way. Pajak (2003) noted that the teachers own view influenced the teacher's role in the classroom. Many variances involved with instructional process challenged researchers to search not only for the effect that instructional strategies had on performance, but also other variables such as (a) interest; (b) learning styles; (c) motivation; (d) attitude; and (e) self-efficacy beliefs.

The strategies used by second language learners were very different. Each learner employed a unique set of skills due to factors such as: (a) degree of awareness; (b) stage of

learning; (c) task requirements; (d) teacher expectations; (e) age; (f) gender; (g) nationality/ethnicity; (h) general learning style; (i) personality traits; (j) motivation level; and (k) purpose for learning the language (Oxford, 1990). According to Myhill (2004), learning styles produced a greater impact on second language acquisition than intelligence, as measured by the IQ test. "Learning strategies appropriate for one type of learning situation may not be appropriate for another" (Chen, 2002, p. 11).

English language learners faced more challenges in education than ever before (Crawford, 2004). Many of the ELL students at the time participated in English-only classrooms without any special assistance in order to improve English acquisition (Garcia, 2008). Ironically, when ELL students did not fare well in mainstream classrooms after being removed from bilingual programs too early, the blame was placed on bilingual programs, rather than on the premature exit from the programs that could have helped the students (Diaz, 2001).

In addition, Crawford (1997) estimated that from 1994-95, 23% of the ELL were in a *submersion* model, where students received instruction in the Native American counterparts. The model, which used English-only instruction without any accommodations for ELL students, violated the *Lau v. Nichols decision.* Zehler (2003) encountered similar results in a 2001-2002 with the Descriptive Study of Services to LEP Students and LEP Students with Disabilities. The research results demonstrated that almost the total entire ELL population in the U.S. was receiving instruction in an English-only setting.

Moreover, Zehler (2003) reported that (a) 60% of the total LEP students received instruction only in English; (b) 20% of the LEP students were instructed using some the LEP student's native language; and (c) 20% of the LEP students were instructed with considerable use

of their native language. The researcher concluded that the instruction of LEP students using the native language approach had considerably decreased compared to a similar descriptive study conducted ten years earlier (Zehler, 2003).

Research studies conducted on Teachers of English as a Second Language (TESOL), often indicate that the use of the home language for instruction of the ELL students would enhance English proficiency (MacDonald, 2004). A report on the trends and prospects in the State of Florida (2004) revealed that while the state had in place a Consent Decree since 1990 that guaranteed ELL students better: (a) identification; (b) services; and (c) comprehensive instruction, the educational standards were stringent. The state and federal government laws clearly stressed the use of English as the sole language of instruction (MacDonald, 2004).

A meta-analysis conducted by Hopstock and Stephenson (2003b), found a great deal of similarity in the results of previous studies. The results indicated that 59.6% of the ELL students received English-only instruction, 20.1% received some native language instruction, and 20.4% received a significant among of native language use. The findings revealed a considerable decrease in native language use with the instruction of ELL students from 1991-1992 through 2001-2002. The review presented evidence that the most common services received by ELL students was through the submersion model, with no further assistance in the student's native language. ELL students who attended bilingual programs for a significant period of time with specific instructional approaches performed better than the students who participated in other types of programs (Genesee, Lindholm-Leary, Saunders, & Christian, 2006). The significance of the English-only instruction of ELL students had a greater impact on the composition of the classrooms within the schools. The shift in the nature of services presented additional challenges

for mainstream teachers, who could require additional training and professional development to positively affect the education of the ELL students (Hopstock & Stephenson, 2003).

Three factors appeared to play a critical role in developing solid relations between students and teachers: (a) the quality of teachers' relationships with students; (b) the quality of education; and (c) the social skills that teachers transmitted to students (Metropolitan Life Insurance Company, 1996). In addition, the survey illustrated that a majority of the students were not satisfied with the way teachers treated students of color and from low socio-economic backgrounds. Classrooms could become examples of equity and democracy if teachers did the following: (a) place students at the center of the teaching and learning process; (b) promote human rights and respect for cultural differences; (c) believe that all students have the capacity to learn; (d) acknowledge and build on the students' prior experiences; (e) critically analyze oppression and power relationships to better understand racism, sexism, classism, and discrimination; (f) critique one's society with the idea of social justice and equity in mind; and (g) participate in a form of collective social action that ensures a democratic society (Gollnick, 2008).

Student centered instruction is distinguished by placing the student's (a) needs; (b) background; (c) knowledge; and (d) interests at the center of the instructional deliverance. A democratic classroom management system is considered to be the type of curriculum where students became active participants of the classroom governing process, and learners critically analyzed school and social practices related to equity and social justice (Gollnick, 2008).

Moll (1992) emphasized that educating language minority students focused on language acquisition. However, the real problem was the overemphasis regarding English language

learning. ELL students usually needed between five and seven years to make a successful transition from speaking their native language to speaking English (Cumming, 1981; Thomas and Collier, 1997). Moreover, Moll (1992) argued that speaking English had not solved all the issues faced by language minority students, such as (a) poverty; (b) racism; (c) poorly financed schools; and (d) the lack of educational equality.

High-Stakes Testing for ELL Students

Standardized testing was originally intended to gather information regarding individual student achievement and strategies to implement additional educational accommodations geared toward student success. The trend for the use of high-stake testing had been towards (a) holding students; (b) teachers; (c) schools; and (d) states accountable for the academic achievement of students (Marchant, 2002).

Evidence of the use of standardized testing in education was reflected in the literature. In 1909, the Thorndike Handwriting Scale was first administered in public schools (Klein, 2006; Perrone, in Kamii, 1990). The rapid increase on test practices in education was evidenced by the use of high stake exams to determine school readiness in public education after the 1950's (Popham, 2001).

Cronbach (1960) argued that standardized tests must be valid and reliable. Reliability was defined as the degree to which the test scores were (a) consistent; (b) dependable; and (c) could be replicated (Cronbach, 1960). By definition, validity was verified by the degree to which a total test was in alignment with the individual items in order to match universal knowledge or content. In keeping with validity, Beattie (1997) recognized 12 criteria for determining validity of standardized tests: (a) relevance; (b) content fidelity and integrity; (c) exhaustiveness; (d) cognitive complexity; (e) equity; (f) meaningfulness; (g) straightforwardness; (h) cohesiveness;

(i) consequences; (j) directness; (k) cost and efficiency; and (l) generalizability. High-stake exams became national or state-wide standardized achievement tests.

Standardized tests involved a specific set of guidelines for administration, such as the same exact (a) directions to all participants; (b) amount of time to complete the test; and (c) resources during the test. Every assessment conducted on ELL shared the common purpose of measuring language skills (American Educational Research, 1985). Thus, conducting standardized assessments to emergent bilinguals, who were still learning the language, was not a valid assessment, unless language and content were unraveled (Garcia, 2008). In light of the requirements of test validity, the emergent bilingual students had to be incorporated in the test design and pilot studies. Only then would the standardized tests be able assess what the information intended to be measured (Garcia, 2008). Additional accommodations to ELL, such as providing additional time, were expected to affect test scores and could decrease the validity of the standardized test (Houser, 1995).

Standardized tests were constructed for monolingual students, which meant that assessing bilingual students utilizing the same tests created a built-in bias of the assessments. Further, in regards to standardized testing, Mercer (1989) stressed that monolingual standardized tests excluded the following: (a) activities; (b) words; and (c) concepts that were meaningful to bilingual students. Academic performance of bilingual students was often measured by the level of language acquisition of the English language and not based on content knowledge (Houser, 1995). Thus, if measuring the levels of content knowledge was the primary interest of standardized tests, the student assessments would be in the home language of the ELL (Houser, 1995).

Achievement tests had been used for decades, while having undergone several changes over the years (Linn, 2006). The origin of mental testing in 1904 was owed to a French psychologist, Alfred Binet (Perdew, 2001). The original motivation for developing mental testing was to identify students in need of special education, in order to enhance the student's potential and further integration in regular classrooms (Perdew, 2001). Gould (1981) and Owen (1985) emphasized Binet's biggest concern about the misuse of testing used in the general population to label students in need of assistance, rather than to find additional resources to help students reach their highest potential.

The 1970's and 1980's were classified as a basic skill period with minimum-competency requirements implemented by the schools (Hamilton, 2003). The most common standardized tests used to measure minimum competence skills were the Metropolitan Achievement Test and the Comprehensive Test of Basic Skills (Popham, 2001). The standardized achievement test became a mandatory practice around the United States, after the publication of a Nation at Risk (National Commission on Excellence in Education, 1983).

"There was nothing novel about the idea of using achievement test results as a major component to an educational accountability system" (Linn, 2006, p. 2). The rationale for the use of test results as accountability indicators included the (a) clarification of teachers' expectations and learning; (b) examination of educational progress of schools and students; (c) examination of the academic progress of demographic subgroups of students and the achievement gap between the subgroups; (d) closing of the gaps in achievement among different ethnic subgroups and economically disadvantaged and the rest of the students; (e) encouragement of greater effort from the students, teachers, and administrators; (f) contribution of the evaluation of curriculum effectiveness in schools; (g) identification of the need for school improvement in educational

programs; and (h) creation of the basis for the rewards and sanctions to schools and students (Linn, 2006).

Testing and accountability measurement in public schools was used by several states as the basis of rewarding and sanctioning (a) students; (b) teachers; and (c) schools (Klein, 2000). The process that determined school and program effectiveness were reached by questionable assumptions (Linn, 2005). Testing and accountability were intended to (a) develop higher standards in education; (b) improve academic achievement and (c) motivate students and teachers (Heubert, 1999; Linn, 2000).

According to the 2007 National Assessment of Education Progress (NAEP), the ELL inclusion and accommodations for state assessments were subject to a wide variety of interpretations, as a result of the school decision making practices of ELL students. In addition to inclusion and accommodation disparities among states, the existing assessment tools to measure ELL progress did not make a distinction between language errors and academic errors (Hakuta, 2001). Therefore, the validity of the assessments was questionable and did not measure the true progress of the ELL students (Crawford, 2004).

Standards were meant to be the pivotal strategy to foster alignment between: (a) curriculum; (b) instruction; and (c) assessment that promised educational equity to all students (Menken & Holmes, 2000). However, despite the common beliefs and goals for student achievement, the accountability system had considerable differences when implemented by the states (Linn, 2005). Menken and Holmes (2000) argued that in order to meet the requirements of such rigorous academic standards, the schools were deemed to provide (a) high-quality

programming; (b) qualified teachers; and (c) all the resources necessary to address the learning needs of the student population.

The United States lawmakers passed the *Goals 2000: Educate America Act* into a law in 1994 with the purpose of improving the education of all students in American schools (Education, 1994). Parallel to the *Goals 2000*, the Elementary and Secondary Education Act of 1965 (ESEA) had been amended by the 1994 Improving America's Schools Act, which demanded states to generate challenging academic content achievement standards and assessments in alignment with the ESEA Act (Riddle, 1999). Students classified as limited English proficiency (LEP) were also included under the umbrella of *Goals 2000* and ESEA laws geared towards improving the educational needs of ELL students (Menken & Holmes, 2000).

Examining the additional negative effects of testing of elementary schools, Smith, Edelsky, Draper, Rottenberg, and Cherlnad (1989) found that testing: (a) reduced the time available for everyday instruction; (b) affected elementary schools curricula, in high stakes testing environments since schools disregarded the objectives that the test did not include; (c) encouraged the use of instructional skills similar to testing skills; (d) caused an effect on school organizations, when placements and instructional opportunities were limited; (e) created subtle structural effects on general instruction; (f) affected students and teachers according to teacher's explanations.

Wright and Choi (2006) assessed the impact of language and high-stakes testing policies in elementary schools of English language learners in Arizona, by surveying third-grade teachers of ELL on school language and accountability policies. The study suggested that the policies resulted in a state of uncertainty in schools over what was permitted and what represented the

quality of education for ELL. The state of California employed two reclassification criterion to determine English language proficiency: (a) language proficiency; and (b) assessment of basic skills. The California English Language Development Test (CELDT) assessed language proficiency and was designed to measure student's (a) communication; (b) reading; and (c) writing skills. The California Standards Test (CST) assessed the proficiency of the English language learner students. Therefore, reclassification depended on the academic achievement of ELL (Grissom, 2004). School districts reported academic proficiency to be the biggest barrier to reclassification, not the English prociency of ELL students (Parrish, Linquanti, Merickel, Quick, Laird, & Esra, 2002).

The lack of evidence to support high-stakes testing policies showed little evidence of the improvement in the education of ELL students. In addition, researchers asserted that the policies deterred the education of such populations of students (Wright, 2006). Holmen (2006) argued that with a minimal level of proficiency in the mainstream language, minority students were expected to know the language and were assessed by the same standards as the native speakers. The education of ELL students was considered to be in crisis, as reflected by the National Center of Education Statistics (NCES, 2004).

Effective schooling of ELL students was deemed to be a challenge for urban school districts in the United States. Little experimental research corroborating the effectiveness of language and literacy development had been conducted with ELL, compared to the research of native English speakers (Lesaux, 2006). Students lacking English language proficiency were usually viewed as failures in schools. The struggling students underwent serious difficulties and often could not remain in school (Partnership, 2004).

Klein (2006) argued that standards-based instruction required a different kind of test design, known as criterion or standards-referenced tests. Criterion referenced tests measured how well students acquired the standards that had been taught (Klein, 2006, p. 2). Furthermore, the results drawn from the criterion referenced-test provided lawmakers and governmental institutions data about student progress and school performance (Klein, 2006).

The current use of de-contextualized standardized achievement tests as the only indicator to make educational decisions, such as promotion to the next grade level or high school graduation, was a poor procedure to use for learning assessments. A call for stronger assessment procedures was well overdue. A contextualized assessment that would provide accurate information about student learning and demonstrate authentic learning in real-life contexts was needed (Sims, 2006).

Equity Issues

In recent years, many educators have challenged the educational establishment by voicing opinions about inequities in education and by considering schools as being the place society perpetuates an undesirable ideology, which supports social differences and transpires into cultural domination (Bourdieu &Passeron, 1977; Bowles & Gintis, 1976; Spina, 1997).

Spina (1997) stressed that the main goal of the ELL/ESL programs in public education was to mainstream students into regular English-only classrooms in a short amount of time. Ovando (2003) argued that many language policies had been disguised with persuasive terms regarding the superiority of the American values and culture. The true goal was to maintain the English only mandates that destroyed minority cultures and values.

The results to the English-only remedy were that it (a) exacerbated the existing inequalities; (b) created a linguistic barrier for students whose primary language was other than English; and (c) secured an advantage to the dominant class of students (Tollefson, 1991). Diaz (2001) argued that when analyzing language diversity in the United States, the issues of status and power had to be taken into account. The language of power was the English language, and bilingualism was accepted when a native speaker had learned another language as a second language (Diaz, 2001). Bilingualism was conceived as a handicap, especially for the ELL whose country of origin was (a) Latin America; (b) Asia; or (c) American Indian, since all of the groups were considered as low status (Diaz, 2001).

Crawford (1992); Adams et al., (1994) in a large-scale study of Mexican American and Puerto Rican students with different levels of English language skills, reported that students with higher levels of English proficiency had lower academic performance. Tollefson (1991) suggested that teachers' attitudes and students' characteristics were perceived to be the main reason for minority students' failure. Language minority students encountered difficulties in learning, attributed mainly to (a) inadequate curriculum; (b) instruction; and (c) staff development (Diaz, 2001). Tollefson (1991) argued that the lack of success of language minority students was attributed to (a) teachers' attitudes; (b) student characteristics; (c) teacher training; and (d) curriculum. The stereotype of ELL students was exacerbated by teachers' misconceptions about language learners (Cummins, 2000).

ELL students generally needed more time to develop English language proficiency. Spina (1998) stressed that the general objective of the accelerated process of English-only education to minorities was to provide mechanisms to improve vocabulary acquisition, while sacrificing (a) content knowledge; (b) creativity; and (c) critical thinking. Cummins (1981) and

Thomas & Collier (1997) stressed that ELL students needed between five to seven years to successfully make a transition from native language proficiency to English language proficiency. Furthermore, while bilingual education and in particular, native-language instruction contradicted the mainstream approach of education in American society, bilingual education was banned with ELL learners in many states that favored English-only education (Proposition 227, 1998).

In general, the majority of ELL students in the United States (80%) were Spanish speakers, who came from lower socio-economic and educational backgrounds (Goldenberg, 2008). In addition, Title III of *NCLB* act required states to develop English language proficiency standards that were aligned to academic content standards. Nevertheless, the alignment of ELL standards was inferior when compared to the other ethnic groups, especially their white counterparts (Hopstock & Stephenson, 2003b).

Teachers' Preparedness

A general agreement among educators, scholars, and researchers in improving the quality of education for all students was that institutional changes and changes in curriculums needed to take place. Changes in (a) teaching materials; (b) teaching and learning styles; (c) teachers' attitudes and perceptions; (d) behaviors of teachers; (e) administrators; and (f) the culture of school were also a part of the agreement to be changed (Banks, 1992; Bennett, 1990; Sleeter and Grant, 1988). The perceptions of many educators for the improvement of education consisted simply of including materials that were sensitive to minorities and ethnic groups in the curriculum (Banks, 1993).

The widespread belief among teachers that content integration comprised the center of multicultural education might have been the factors that lead teachers of core subjects, such as math and science, to view multicultural education as a venture for social studies and language art teachers (Banks, 1993). Equity pedagogy stressed the application by teachers of techniques and methods that improved the academic achievement of students from (a) diverse ethnic; (b) racial; and (c) social-class groups (Delpit, 1988; Ogbu, 1990; Shade, 1989).

The Teachers of English to Speakers of Other Languages (TESOL) in 1997 created ESL (ELL) Standards for Pre-K to 12th grade students. Cummins (2000) argued that the standards for ELL were created with the hope to guarantee equity in education, as well as to provide educational opportunities to language minority students. The standards for ELL students were based on (a) personal; (b) social; and (c) academic uses of the English language (Menken, 2000). Despite the implemention of the stardards for ELL students across the United States, the standards alone were not sufficient to cause improvements in teaching and learning, due to the fact that standards were not specific enough with informing teachers how to implement them (Menken, 2000).

The National Assement of Title I in 1998 found that only 37% of the teachers in Title I schools reported that teachers felt well prepared to implement state or district curriculum and performance standards (U. S. Department of Education, 1999). Darling-Hammond (1997) argued that more than one- third of new teachers in the school districts were hired in low income urban and rural school districts, and the majority of the teachers in inner-city public schools with minority student had enrollments of at least 20% (Recruiting New Teachers, Inc., 1999). The large population of new teachers was challenged to educate students from diverse backgrounds

in an increasingly complex knowledge-based, technology-oriented society with the demands of school accountability issues.

The sense of preparedness was the key factor in predicting student achievement, which required extensive professional development for teachers (Menken, 2000). Seventy percent of the teachers in high-poverty schools reported receiving less than 9 hours per year of professional development regarding content and performance standards (U. S. Department of Education, 1999). Many K-12 teachers often resisted changing the traditional teaching style to a learning style that promoted learning while accommodating differences in (a) ability; (b) style; or (c) interest among students. School systems had to integrate workshops and seminars in the schools promoting the understanding of learning styles and the role in improving student's learning, which would respond to the needs of the diverse student populations in the classroom (Claxton, 1987).

Despite the need for professional development to encourage the use of standards in instruction that would further improve academic achievement; the focus was geared toward accountability and not towards professional development (Menken, 2000). The designs for the schools' implementation of standards-based instruction required shared responsibilities between the districts and the schools, including successful reform attempts needed by the district leadership and local interventions (Darling-Hammond, 1997). Shared responsibility in standard implementation entailed that districts and schools share a universal vision and mission for all students, and the willingness to work together (Clair, Temple, Adger, Short, & Miller, 1998).

In 1996, The Massachusetts Executive Office of Education found that even though the school district did not monitor the progress of ELL students who had exited the bilingual

education or ESL (ELL) programs, the academic achievement of the former ELL had declined in the mainstream classrooms (Clair, et al., 1998). The enactment of the NCLB Act impacted schools facing severe challenges on standard implementation, especially in culturally diverse schools (August & Hakuta, 1997; McLaughlin & Sheppard, 1995). Garcia (1994) stressed that in culturally diverse schools, the implementation of standards forced teachers to be aware of (a) attitudes about language; (b) culture; (c) cultural backgrounds; and (d) cognitive processes. Standard implementation induced schools to assist culturally diverse students by providing challenging curricula (Clair, 1998).

Language minority students, who had not yet become fluent in English in high stakes testing, created a major concern among many scholars, educators, and other involved in testing debates (Wright, 2002). ELL students were expected to meet the same standards as native English speakers on high stake tests when instructional gains had not yet been achieved to enable all students to meet the standards (Heubert, 2001).

The emphasis on a quick-fix solution to a long-term problem, an extensive amount of test preparation, impoverishment of best practices identified through scientific research, and undermining dedicated educators, were among the challenges of educating ELL under the NCLB era (Crawford, 2004). The majority of ELL students who did not fare well in mainstream classrooms were believed to have difficulties related to the relationship between learner characteristics and learning conditions (Lesaux, 2006). Reports of school facilities where ELL education took place, indicated that the ELL students were often on the periphery, in the basement, or outside the school building (Olsen, 1997).

Conclusions

The purpose of the literature review was to analyze the theoretical and empirical literature, which emphasized the relationship between teachers' cognitive styles and self-efficacy on teachers of ELL students. The focus was to examine the cognitive styles that teachers of ELL students had and the effect on teachers' self-efficacy levels. Above all, the relation between teachers' self-efficacy, cognitive styles, and student performance were explored to identify problem areas for future areas of study.

The issue regarding educating immigrant students in American schools has been documented in the literature. Since the late 1960's, immigrants arriving from different parts of the world received free public education. The immigrant students have become the fastest growing population in schools for the following reasons: (a) the legal immigration in U.S. history; (b) the high influx of illegal immigration; and (c) the fleeing of refugees from other countries (Porter, 1999). A number of factors influenced the development of educational policies in U.S. such as: (a) the enactment of the Immigration Act of 1965; (b) the Mariel boatlift; (c) the political turmoil in Haiti during the Duvalier regime; (d) the occurrence of natural disasters around the world.

The fast growing number of ELL students in American schools exacerbated the challenges concerning the education of ELL students, resulting in most of the challenges connected to academic performance. The achievement disparity among ELL students and monolingual English speaking students was specially marked (NCELA, 2008). Accountability measurements in public schools were used on the grounds of rewarding and sanctioning: (a) students; (b) teachers; and (c) schools (Klein, 2000). The schools were required to report

detailed information about four subgroups: (a) minority students; (b) students with disabilities; (c) students with limited English proficiency; and (d) students from low socio-economic status (U.S. Department of Education, 2002).

The level of performance of the ELL students was measured through data analyzed and compared with other group of students at state and national levels. The research identified the need to close the academic achievement gap between ELL students and other ethnic groups of students to succeed in today's fast growing technological society. In general, the majority of ELL students in the United States (80%) were Spanish speakers, who came from lower socio-economic homes and educational backgrounds (Goldenberg, 2008). The evidence indicated that the struggles of ELL students with academic achievement were related to the interactions between the learner characteristics and learning conditions (Lesaux, 2006).

The federal government enactment of the NCLB Act of 2002 caused damaging pressure on schools (Klein and Zevenbergen, 2006). The primary goal of NCLB was to close the achievement gaps between (a) economically disadvantaged students with students from higher socio-economic backgrounds; (b) major racial and ethnic subgroups; (c) students with disabilities with those without; and (d) limited English proficient students with those who were proficient (Linn, 2006). Schools were required to make Adequate Yearly Progress (AYP) by raising the achievement levels of eight student subgroups to a state-determined level of proficiency. The student subgroups included all students who were (a) Caucasian; (b) African American; (c) Asian; (d) Hispanic; (e) Native American; (f) Limited English Speaking (LEP); (g) low-income; and (h) the special education students.

On March 13, 2010, the U.S. Department of Education released a proposal to modify the Elementary and Secondary Education Act (ESEA), also known as No Child Left Behind Act

(NCLB) (U.S. Department of Education, 2010). The initiative was based on the notion that the current act did not offer encouragement for high learning standards. Low standards contributed to the existing high school dropout rate in the nation, which affected the percentage of students graduating from two-year or four-year colleges (Duncan, 2010). The main goals for the reauthorization were to: (a) raise standards in education; (b) provide incentives for excellence and growth; and (c) increase state and district control in order to maintain the focus on equity and narrowing the achievement gap (U.S. Department of Education, 2010).

A report on the trends and prospects in the State of Florida (2004) revealed that while the state had in place a Consent Decree since 1990 that guaranteed ELL students better: (a) identification; (b) services; and (c) comprehensive instruction, the educational standards were stringent. The state and federal government laws clearly stressed the use of English as the sole language of instruction (MacDonald, 2004).

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The National Assessment of Title I in 1998 found that only 37% of teachers in Title I schools reported that teachers felt well-prepared to implement state or district curriculum and performance standards. Darling-Hammond (1997) argued that more than one-third of new teachers in the school districts were hired in low income urban and rural school districts, and the majority of the teachers in inner-city public schools with minority student had enrollments of at least 20% (Recruiting New Teachers, Inc., 1999). The large population of new teachers was

challenged to educate students from diverse backgrounds in an increasingly complex knowledge-based, technology-oriented society with the demands of school accountability issues.

In 2004, Grigorenko, Meier, Lipka, Mohatt, Yanez, and Sternberg concluded that students, who were from non-mainstream cultures, often exhibited in schools a different kind of knowledge that was relevant to the students' cultures and lives. Teachers often failed to identify the distinct forms of intelligence and adaptive knowledge and typically did not provide scaffolding to the students who needed to foster further learning to achieve a high quality education. Cognitive style abilities could not be assessed by standardized tests. According to Gardner (1983), the schools' views on intelligence were to value the verbal and logical-mathematical skills related to the IQ test and exclude creative and divergent thinking.

Streufert and Nogami (1989) highlighted cognitive styles as a determinant factor when explained the reasons why individuals were able to respond appropriately while dealing with various situations. Consequently, individuals with similar: (a) abilities; (b) knowledge; and (c) skills performed differently. In addition to identifying the cognitive styles that were related to teachers' sense of efficacy, the literature suggested to look at other factors that affected student performance. Motivation, engagement, anxiety, self-efficacy, and instructional strategies were factors identified in the literature as influencing student performance. Most distinctive, self-efficacy significantly influenced motivation, engagement, and anxiety. Consequently, the key theory used in the review was the self-efficacy theory.

The four sources of self-efficacy were (a) enactive mastery experiences; (b) vicarious experiences; (c) verbal persuasion; and (d) psychological and effective states (Bandura, 1997). Enactive mastery experiences were recognized as the most significant due to the fact that the

experiences provided "stronger and more generalized efficacy beliefs" (p.80), which underlined the importance of enactive mastery experiences in developing high self-efficacy beliefs. In education, enactive mastery experiences highlighted the importance of selecting and applying the instructional strategies that provided the most profound experiences for students in the classroom. There was a relation between students' experiences or activities and the instructional methods or strategies used.

Pajares (2002) indicated that self-efficacy strongly affected human actions. Moreover, resent research revealed that although students' self-efficacy beliefs influenced academic performance, the accuracy of the results was crucial to effective functioning and academic success (Bandura, 1986, 1997; Chen, 2003; Chen & Zimmerman, 2007).

In another study, Ramadas and Zimmerman (2008) indicated that teachers were required to monitor students' judgment of self-efficacy in order to provide successful instruction. Teachers played an important role in the delivery of instruction. Research showed that even when the school was relatively ineffective, an individual teacher had a powerful influence on student learning (Marzano, Pickering, & Pollock, 2001). "Although individuals may generally employ a particular cognitive style, in certain circumstances they may exhibit other styles" (Salvisberg, 2005), p. 1). Van Den Broeck, Vanderheyden, and Cools (2003) found that identifying the different cognitive styles influence stronger job selection and placement, where people felt confident about work and performed at a higher level. Talbot (1989) indicated that the difference in cognitive styles positive influenced one-on-one and team interactions in the work environment.

Teachers of ELL students were challenged to discover each student's general style to produce superior results. The approach seemed to enable students to maximize on their strengths and to compensate for their weaknesses, learning information in various interesting ways (Sternberg, 2006). Consequently, establishing the relationship between cognitive styles and self-efficacy of teachers of ELL and identifying which cognitive style (knowing, planning, and creative) seemed to have more influence on teacher self-efficacy was the purpose of the research.

The literature review revealed the following: (a) standardized testing continues to be the tool of preference when assessing student achievement in American schools (Klein, 2000); (b) ELL students that attended bilingual programs for a considerable among of time, performed better than students who participated in other programs (Genesee, Lindholm-Leary, Saunders, & Christian, 2006); and (c) educational funds designed to assist schools under the Bilingual Education Act were used to provide English-only assistance (Crawford, 1999). Therefore, with the limited logistic of testing students, the researcher chose to evaluate teacher effectiveness as a feasible alternative to assess student performance and to determine which teacher characteristics will show evidence that impact student learning and aid students reach their highest potential. The researcher also believes that identifying the above relationship could be considered as an area for future research.

CHAPTER III

RESEARCH METHODOLOGY

The third chapter describes the methodology used to answer research questions and hypotheses about the relationship among teachers of ELL students in regards to: (a) cognitive styles (b) self-efficacy; (c) demographic characteristics; (d) sense of competence; and (e) job satisfaction. The research questions and hypotheses developed from the gaps in the literature and the scarcity of research, which explored the influence of teachers' cognitive styles and self-efficacy of teachers of ELL students. This chapter includes the (a) purpose of the study; (b) research design; (c) population size; and (d) sampling plan; (e) instrumentation; (f) data collection procedures; (g) data analysis methods; and (h) evaluation of research methods.

Purpose of the Study

The primary purpose of this non-experimental exploratory correlational study examined the relationship between cognitive styles, as measured by the Cognitive Styles Indicator (CoSI) (See Appendix A) (Cools, & Van den Broeck, 2007) and self-efficacy, as measured by the Teachers' Sense of Efficacy Scale (TSES) (See Appendix B) (Tschannen-Moran, & Hoy, 2001) of the teachers of ELL students. In addition, the primary researcher investigated (a) characteristics of teacher demographics; (b) sense of competence; and (c) sense of efficacy, when teaching ELL students and while working in a public school district in Southeast Florida.

Cools and Van den Broeck (2007) differentiated two fundamental cognitive style dimensions as follows: (a) analytical versus holistic thinking; and (b) conceptual versus experiential thinking. The combination of the two dimensions resulted in the four cognitive styles: (a) knowing; (b) planning; (c) creating; and (d) cooperating.

The knowing style (analytical and conceptual) is used by individuals (a) with an analytical and conceptual thought process, and (b) who look at the facts and data. Analytical learners perceive (a) reality truthfully; and (b) grasp and retain information with details. Furthermore, the knowing individual is (a) task-oriented; (b) accurate; and (c) prefers complex problems for which to find obvious and coherent solutions. On the other hand, the goal of the planning style learner (analytical and experiential) is to (a) create structure; (b) organize; (c) control; and (d) seek structured work environments. Planners highly value preparation and planning as a way to reach the objectives. The individuals are not risk takers, and encourage others to obey rules and agreements.

The creative style (holistic and conceptual) is characterized by individuals who enjoy experimentation and creativity. Creative people view problems as opportunities and challenges. Holistic learners are averse to rules and procedures and enjoy some level of freedom. On the other hand, the cooperating style (holistic and experiential) is (a) valued by individuals who enjoy communication and interpersonal relationships; and (b) is geared toward experiential and practical solutions, while taking people's knowledge and ideas into account when making decisions. Cooperating people are (a) strong listeners; (b) sensitive; (c) people oriented; (d) team players; and (e) cooperative.

In addition, the study investigated teachers' self-efficacy measured by the Teachers' Sense of Efficacy Scale Test (TSES) (See Appendix B) developed by Tschannen-Moran & Hoy (2001). The researchers studied five of the self-efficacy instruments that were previously created at the time and compared the validity and reliability. The five instruments consisted of the (a) teacher efficacy (ET) instrument created by Rand researchers in 1976; (b) the responsibility for student achievement (RSA) instrument by Guskey (1981); (c) the teacher locus

of control (TLC) by Rose and Medway (1981); (d) the teacher efficacy scale (TES) by Gibson and Dembo (1984); and (f) 30-item teacher self-efficacy scale by Bandura (1997). The Gibson and Dembo's TES was created upon the self-efficacy ideas used by the Rand studies and added self-efficacy concepts introduced by Bandura's Social Cognitive Theory (Tschannen-Moran & Hoy, 2001). Variables not included in this study that may affect the results are: (a) the teachers' preferred courses for teaching; and (b) the collective teacher self-efficacy.

The research design resulted from the: (a) considerations of previous studies; (b) investigations; and (c) gaps in the literature. The following research questions and hypotheses intended to address some of the gaps.

Hypotheses

The study investigated the relationship between the cognitive styles of teachers of ELL students and teacher's efficacy. In addition, the project explored the teachers' cognitive styles that had a predictive value on the teachers' perceptions of teacher efficacy and how teacher demographics influenced the levels of teacher efficacy. Therefore, the researcher hypothesized the following:

H1. The demographic characteristics of ELL teachers will have an association with cognitive styles.

H2. Cognitive styles will influence teachers' self-efficacy.

H3. ELL teacher demographic characteristics will vary with different levels of teacher efficacy.

Research Questions

1. Which teacher demographic characteristics had an association with cognitive styles: (a) gender; (b) age; (c) race; (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program attended; (i) marital status; (j) familial status; (k) teach ELL students; (l) ESOL endorsement; (m) general classroom teacher; (n) teaching level; (o) number of years teaching; (p) number of years teaching ELL; and (q) educational level. Did teachers of ELL students or non-ELL teachers have higher levels of teacher efficacy?

2. Which cognitive style revealed the highest levels of teacher efficacy?

3. Which teacher demographic characteristics showed the greatest levels of teacher efficacy?

Research Design

The study used a non-experimental exploratory correlational research design. Non-experimental correlational research design attempted to determine in what extent variables were associated with each other, which involved the linear association between two variables (Huck, 2004). Although, randomized designs were strongest designs, the researcher chose correlation research design due to its feasibility for this study. Non-experimental research were often the appropriate mode of research in educational settings due to the presence of fixed independent variables that needed additional investigation (Johnson, 2001).

The study employed two survey instruments containing Likert scale questions and a demographic checklist developed by the researcher. The investigator surveyed educators at a South Florida public school district. This non-experimental exploratory correlational study

attempted to examine the association between teachers' self-efficacy and cognitive styles. The data collected and analyzed included the teachers' self-efficacy level and the cognitive style preferences to determine whether or not there was a correlation between cognitive styles and self-efficacy. Additionally, the study analyzed demographic information, specifically (a) gender; (b) age; (c) race (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program attended; (i) marital status; (j) familiar status; (k) teacher of ELL students; (l) ESOL endorsement; (m) general classroom teacher; (n) number of years teaching; (o) number of years teaching ELL students; and (p) highest level of education achieved. The researcher determined whether the variables affected the relationship between self-efficacy and cognitive styles through the review of the data. The survey/answer sheets was utilized to collect the quantitative data (See Appendix A; Appendix B; Appendix C). The researcher used inferential statistics, which is a statistic analysis used to compare or relate two or more variables (Creswell, 2005). The investigator utilized: (a) Correlation; (b) Multiple Regression Model; and (c) Multivariate Analysis of Variance MANOVA tests for data analysis.

The dependent variables were the self-efficacy of teachers of ELL students as measured by the by the *TSES* (See Appendix B). The independent variables were the Cognitive Style Indicator (CoSI) (See Appendix A) (Cools, & Van den Broek, 2007) followed by the teacher demographic characteristics: (See Appendix C) (a) gender; (b) age; (c) race (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program attended; (i) marital status; (j) familiar status; (k) teacher of ELL students; (l) ESOL endorsement; (m) general classroom teacher; (n) grade level you teach; (o) number of years teaching; (p) number of years teaching ELL students; and (q) highest level of education achieved. Other variables were not included, which may also affected the results of the study, were the (a) ELL student

population; (b) preferred grade level for teaching; and (c) collective teacher self-efficacy. The research design resulted from considering previous investigations and gaps noted in the literature.

Independent Variables

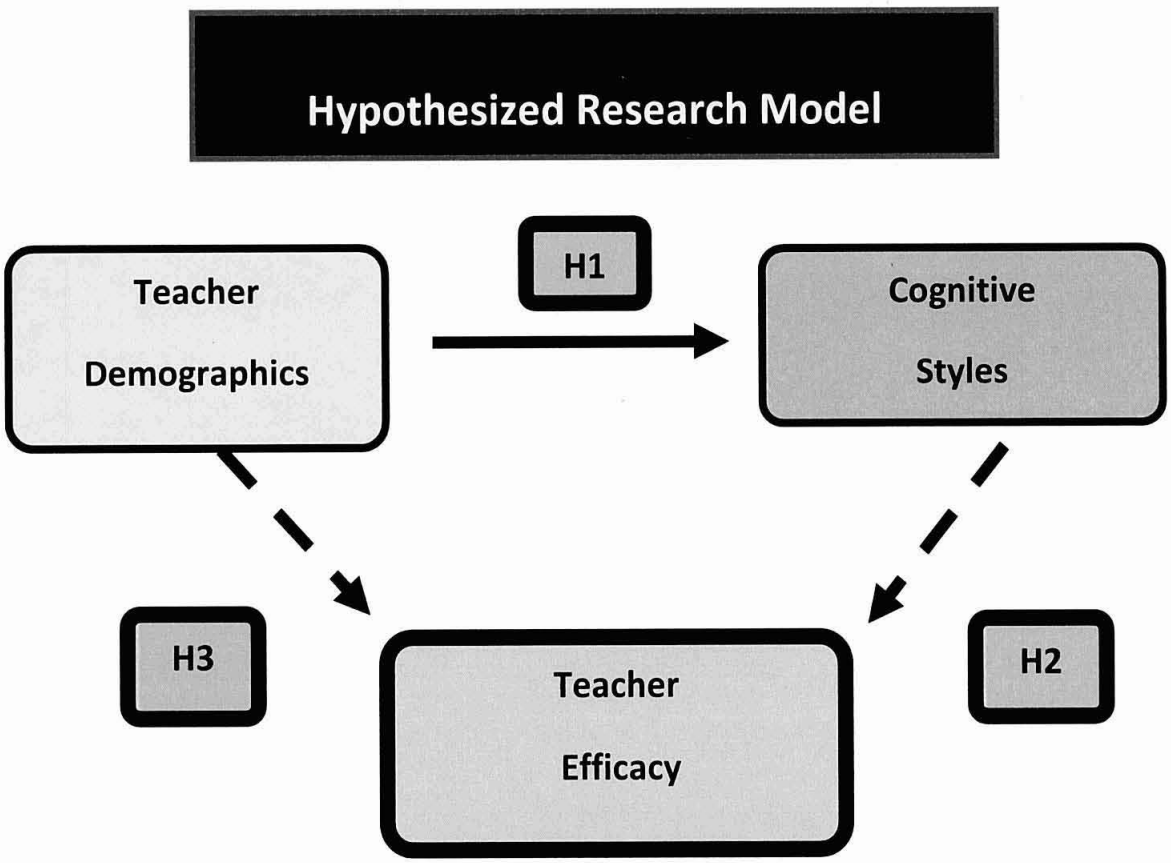
The independent variables in the study were the cognitive styles as determined by participants' score on the Cognitive Style Indicator (*CoSI*) (See Appendix A) (Cools, & Van den Broeck, 2007). The CoSI is an 18-item cognitive style instrument, which distinguished between (a) knowing; (b) planning; and (c) creating style (Cools & Van Den Broeck, 2006). The continuous variables were used to analyze the scores that were not discrete measures as knowing, planning, and creating styles.

The remaining independent variables were the teachers' demographic characteristics from the researcher's Teacher Demographic Profile Checklist (See Appendix C). The teachers' demographic were as follows: (a) gender (dichotomous); (b) age (continuous); (c) race (nominal) (d) first language (nominal); (e) bilingual (dichotomous); (f) place of birth (nominal); (g) place of formal education (nominal); (h) type of ESOL program attended (ordinal); (i) marital status (ordinal); (j) familiar status (continuous); (k) teacher of ELL students (dichotomous); (l) ESOL endorsement (dichotomous); (m) general classroom teacher (dichotomous); (n) grade level you teach; (o) number of years teaching (ordinal); (p) number of years teaching ELL students (ordinal); and (q) highest level of education achieved (continue).

Dependent Variables

The dependent variables in the study were the teachers' self-efficacy as measured by the TSES (See Appendix B) identified by the researchers as the following: (a) student engagement;

(b) instructional strategies; and (c) classroom management, based to the participants' responses to the Teachers' Sense of Teacher Efficacy survey (Tschannen-Moran & Hoy, 2001). The participants identified cognitive styles by answering each of the seventeen items, reflecting the three areas of teacher efficacy, on a Likert Scale ranging from 1 to 6, which was reported as a continuous variable.


Hypothesized Research Model
Teacher Demographics
H1
Cognitive Styles
H3
Teacher Efficacy
H2

Target Population

A target population is a group of individuals that possess the same characteristics (Creswell, 2005). The target population for the study consisted of K-12 educators of ELL students and general classroom teachers at Miami-Dade Public School District in South Florida. All participants in the sample had an equal chance of being selected for the study. The probability of selecting any individual in the population as a participant was the same as for selecting any other individual in the population, but the probability of selecting any given person must not be affected by whether any other person is chosen (Glass & Hopkins, 1996).

Accessible Population

To ensure confidentiality, the investigator invited K-12 teachers of ELL students and general classroom teachers by sending an e-mail with a link to the surveys. The primary researcher originally intended to forward the e-mail to the teachers union, which then were going forward the e-mail to all the union members. However, after agreeing with the researcher, the union official denied permission to conduct the study. The researcher then emailed the principals of elementary, middle, high schools and K-8 centers with a large ELL student population in Miami-Dade County Public Schools. Once the principals agreed to include their schools in the study, the primary investigator forward an invitation letter to participate in the study and a link to access the survey. Approximately 2400 teachers were invited to participate in the study, working in the same Southeastern school district. Each teacher participant completed the online version of the surveys (See Appendix A; Appendix C; & and Appendix E) individually and immediately submit the surveys once completed. The researcher anticipated a

sample size of 200 participants. The participants were able to read, write, and speak English. The education levels of the participants varied from a four-year degree to a doctorate degree.

Sampling Plan

The sample population is "a subgroup of the target population that the researcher plans to study for generalizing about the target population" (Creswell, 2005, p. 146). The research wused a convenient sampling plan to obtain the sample for the purpose of the study that (a) assumed an even distribution of characteristics within the population to determine a representative sample; (b) provided descriptive information regarding the population; and (c) compared some of the survey results with available information about the population to address data quality. According to Creswell (2005), convenient sampling includes participants that are "willing and available to be studied" (p. 149). The sample population included approximately 200 teachers of ELL students and general classroom teachers who teach at Miami-Dade County Public School District in South Florida.

Instrumentation

Cognitive Style Indicator (CoSI) (See Appendix A)

The researcher used the Cognitive Style Indicator (*CoSI*) (See Appendix A) developed by Cools & Van den Broeck (2007) to measure the variable of cognitive styles. The instrument measured analytic versus holistic thinking and conceptual versus experiential thinking using the *CoSI.* Combining the two dimensions yielded the following four cognitive styles: (a) knowing style; (b) planning style; (c) creating style; and (d) cooperating style. The instrument measures three scales using (a) open-ended questions; (b) people's preference when making decisions and handling conflicts; and (c) mechanisms for dealing with others. "Open-ended questions give

people the opportunity to answer from a unique perspective instead of being forced into the response options that are driven by the paradigm of the survey practitioner or design team" (Church & Waclawski, 1998, p.49).

The CoSI instrument comprised of three sections consisting of 18 items. The non-parametric test takes approximately 20 minutes to complete. Reliability was determined by comparing parallel forms. The Spearman-Brown prophecy formula computed and corrected correlations among the nine-item first section and the nine-item second section with a reliability rate of .82 for males and females. Validity is determined by finding the correlation to its parent-test. The correlations resulted with the two tests reported as -.82 for male undergraduates and -.63 for female undergraduates and the Tyron's variance coefficients ranged from .89 to .95.

Teachers' Sense of Efficacy Scale (TSES) (Appendix A)

The researcher used the Teachers' Sense of Efficacy Scale (TSES) (See Appendix B) developed by Tschannen-Moran & Hoy (2001) to measure the variables of teacher efficacy. Tschannen-Moran & Hoy (2001) studied five of the self-efficacy instruments that were previously created at the time and compared their validity and reliability. The five instruments consisted of the (a) teacher efficacy (ET) instrument created by Rand researchers in 1976; (b) responsibility for student achievement (RSA) instrument by Guskey (1981); (c) teacher locus of control (TLC) by Rose and Medway (1981); (d) teacher efficacy scale (TES*)* by Gibson and Dembo (1984); and (e) 30-item teacher self-efficacy scale by Bandura (1997). The Gibson and Dembo's *TES* was created upon the self-efficacy ideas used by the Rand studies and added self-efficacy concepts introduced by Bandura's Social Cognitive Theory (Tschannen-Moran & Hoy, 2001).

Tschannen-Moran and Hoy (2001) developed a new instrument, which integrated the best way to measure teacher efficacy. Bandura (1997) advised researchers not to create a compilation of tests including "personal attributes designed to serve diverse purposes" (p.39). Specifically, Bandura suggested not engaging in creating item scales not presented within the context of the particular situation applicable to the area or domain that was being analyzed. A team of two researchers and eight graduate students was formed to develop the *TSES*. The group with teachers, ranging from 5 to 28 years of experience, chose a measure based on Bandura's scale and enlarged the list of items to incorporate more items about teacher competence. The results were a short and a long version, both with a high degree of reliability.

The instrument measures teachers' perceptions across three areas: (a) student engagement; (b) instructional strategies; and (c) classroom management. The participants' scores on the Teachers' Sense of Efficacy Scale will be based on 22 questions that follow a Likert scale of 1 to 6 including the following: (a) nothing; (b) very little, (c) some influence; (d) quite a bit; and (e) a great deal. After participants completed the survey, the researcher was able to determine each teacher's degree of teacher efficacy in the three areas of (a) student engagement; (b) instructional strategies; and (c) classroom management.

Teacher Demographic Profile Checklist (See Appendix C)

For the purpose of data analysis, the researcher constructed a checklist instrument to measure teacher demographic characteristics (See Appendix C). The checklist was comprised of a series of questions pertaining to (a) gender; (b) age; (c) race; (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program attended; (i) marital status; (j) familiar status; (k) teacher of ELL students; (l) ESOL endorsement; (m) general

classroom teacher; (n) grade level you teach; (o) number of years teaching; (p) number of years teaching ELL; and (q) highest level of education achieved. The checklist instrument was a reliable and valid instrument since the self-reporting participants in the study respond to the items.

Procedures

Ethical Considerations and Data Collection Methods

The researcher took the following procedures of data collection to ensure ethical considerations during the data collection methods:

1. Obtained permission to use the instruments from Cools & Van Den Broeck (CoSI) and Tschannen-Moran & Hoy (TSES), selected in this study before collecting the data.
2. Achieved Institutional Review Board approval for the study from Lynn University. The following required form: IRB Form 1- *Application and Research Protocol for Review Research Involving Human Subjects in a New Project IRB* will be submitted to Lynn University Institutional Review Board.
3. Received approval from the Institutional Review Board of the South Florida School District.
4. Attained permission from the president of the teachers' union at a South Florida school district to forward the surveys to all its members electronically.
5. Sent the invitation letter to participate in the research study through the teacher association, along with the link to www.qualtrics.com the teachers' e-mail addresses.

6. Provided eligibility criteria to the teachers within the first two pages of the survey to ensure that teachers not meeting the criteria do not complete the survey.
7. Included the Voluntary Consent Form in the survey. Teachers will indicate agreement to participating in the survey by pressing the "I agree to participate" button to participate in the study. Participants will then click on the link to start the online *Cognitive Style Indicator* (*CoSI*) survey. If the participant presses the "I do not agree to participate" button, participants will exit the survey and return to the home page of Qualtrics.com. After the participants complete the online *Cognitive Style Indicator* survey, teachers will take the *Teachers' Sense of Efficacy Scale* (*TSES*) and the teacher demographic characteristics survey.
8. Sent the first follow-up email to the president of the teachers' union or designee one week after the survey begins. The union will then forward the follow-up email to all the members as a reminder.
9. Allowed six weeks for the data collection process with www.qualtrics.com. The IP address of participants will not track or any other individual identification information.
10. Sent a second follow-up email to the president of the teachers' union or designee two days before the survey ends. They will then forward the follow-up email to all the members as a reminder.
11. Downloaded the data collected.
12. Submit IRB Report of Termination Project to Lynn University within four weeks of the conclusion of the data collection.
13. Coded and download data into SPSS (Version 19.0).

14. Used the *CoSI* (Appendix A) to determine teachers 'cognitive styles scale (knowing, planning, and creative).
15. Used the TSES (Appendix B) to determine the teachers' self-efficacy scale.
16. Used the teacher demographic information questionnaire (Appendix C) to gather background information about the participants.
17. Performed data analyses as described in the data analysis section using SPSS (Version 19.0).
18. Stored data on a password-protected computer.
19. Kept all surveys results at the researchers' office in a locked file cabinet.
20. Retained data for five years, and the researcher will destroy all the data after five years.

Methods of Data Analysis

Upon completion of the administration of data collection, the researcher collected the data and entered it into the Statistical Package for Social Sciences (SPSS) (Version 19.0). The SPSS is a computer program used for statistic analyses. Finally, the researcher performed a frequency distribution to check for coding errors. Data will stored for a period of five years in a secure locked depository box and then be destroyed.

The researcher determined reliability estimates using Cronbach's Alpha (α) and Spearman-Brown prophecy formulas. The Criterion-related validity was established using Correlation research design for data analysis. The researcher chose Correlational Analysis to establish the association among the variables and to answer the research questions, which evaluated the associated dependent variables. Descriptive statistics and inferential statistics summarized the characteristics of the sample.

Descriptive and inferential statistics answered the research questions. In addition, the researcher used Multiple Regression and Multivariate Analysis of Variance MANOVA for data analysis and to explore the contribution of the independent variable of cognitive styles (knowing, planning, and creative styles) and other intervening and mediating variables or dependent variables, including teacher demographic characteristics and teachers' self-efficacy.

For question one, " Which teacher demographic characteristics have an association with cognitive styles: (a) gender; (b) age; (c) race; (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program attended; (i) marital status; (j) familial status; (k) teach ELL students; (l) ESOL endorsement; (m) general classroom teacher; (n) teaching level; (o) number of years teaching; (p) number of years teaching ELL; and (q) educational level. ELL teachers or non-ELL teachers have higher levels of teacher efficacy?" the researcher used a Correlational Analysis to analyze the data. The program established a correlation between teacher demographic characteristics (gender, age, country of birth, place of formal education, type of ELL program attended, race, familiar status, number of children, ELL teacher, ESOL endorsement, general classroom teacher, grade level of teaching, number of years teaching, number of years teaching ELL, language spoken other than English, bilingual, and highest level of education achieved) and cognitive styles (knowing, planning, and creating).

For question two, "Which teacher demographic characteristics showed the greatest levels of teacher efficacy?" the researcher used Multiple Regression for data analysis. The statistical program compared cognitive style and teachers' self-efficacy, and to determine if correlation exists between teachers' cognitive styles and teachers' self-efficacy.

For question three, "Which cognitive styles revealed the highest levels of teacher efficacy?" the researcher used a Multivariate Analysis of Variance MANOVA for data analysis. The program compared the differences in teacher demographic characteristics and teachers' cognitive styles.

Evaluation of Research Methods

External Validity

External validity refers to the action in which the variable relationships are generalized to other (a) setting; (b) treatment variables; (c) measurement variables; and (d) locations or populations (Best & Kahn, 1993). The sample population for this study comprised of K-12 employees from Miami-Dade County Public School district in South Florida, who had an educational level which varies from a four-year degree to a doctorate degree. The majority of the participants were required to attend professional developments which address learning competencies and teacher efficacy.

There was no pretest treatment interaction, since there was no pretest involved in the study that could have an influence on a posttest. There were also no multiple treatment interferences or treatment diffusion, due to the fact that the participants did not receive any treatments. The researcher created the teacher demographic characteristics checklist to help limit any experimenter effects. However, there was the possibility of reactive effects in how the participants responded to the instrument. Sending surveys instruments via e-mail was (a) less time consuming; (b) more cost effective; (c) easier and faster data analysis; (d) faster than traditional mail; and (e) faster with a response rate.

Internal Validity

The instrumentation in the research study did not change before, during, or after the study was in progress. The researcher did not anticipate any events that might occur since a pretest was not administered in the research study. Maturation or selection-maturation interaction was unlikely to occur, thus eliminating the risk of the data collection being invalid. An additional strength was the higher response rate and more honest responses from candidates by using electronic surveys.

The CoSI and the TSES were reliable instruments that allowed for strength of internal validity. There was no control and experimental groups or differential selection of participants. The anticipated sample size was large enough to conduct statistical analysis.

Threats to Validity

A threat to internal validity was the use of a convenient sample that may pose a potential selection bias. Selection bias "is likely when upon invitation, volunteers are used as members of an experiment group" (Best & Kahn, 1993, p. 143). Participants in a convenient sample may have been more motivated to participate than the representative population, which may have resulted in a threat to the internal validity. In addition, extraneous variables could have confounded the study and be controlled (Christensen, 2004). "Control means exerting a constant influence on all groups of participants" (Christensen, 2004, p. 200). Furthermore, even though the results from the CoSI and TSES assumed the participants answered the questions honestly, the length of the survey and the time constraints of the participants may have influenced the different responses to the TSES survey. The confounding variables were the teacher demographic characteristics, since it was possible that demographics could have played an adverse role on the results of the study.

The weaknesses of the survey instruments being administered on-line were: (a) lower levels of confidentiality due to the open nature of most online networks; (b) online computer training might have been necessary; (c) possible technical difficulties with hardware and software could have occured; and (d) the higher response rate tended to occur at the beginning of study only.

A threat to external validity was the interaction of selection and treatment. Christensen (2004) stated that external validity "is the extent to which the results of the experiment can be generalized across variations in people, setting, treatments, outcomes, and times" (p. 217). Researchers rarely were able to select random samples, therefore "generalizations from samples to populations are hazardous (Best & Kahn, 1993, p. 145). The use of a convenient sample and lack of randomization prevented the generalization of the results to other populations. The researcher reduced the threat to external validity by opening the survey to all general classroom teachers in the district.

Summary

Chapter III described the research methodology that the researcher used to answer the research questions and test the hypotheses to determine whether teachers' cognitive styles had a relationship with teacher efficacy. The chapter also described the (a) purpose of the study; (b) research design; (c) the sampling plan; (d) instrumentation; (e) procedures; (f) data collection methods; and (g) data analyses methods. Chapter IV will explain the findings of the study, and Chapter V will include the (a) conclusions; (b) interpretations; and (c) implications for the findings in the research study. In addition, Chapter V will provide limitations of the study and suggestions for future research.

CHAPTER IV

RESULTS

This non-experimental exploratory correlational study examined the relationship between cognitive styles, as measured by the Cognitive Styles Indicator (CoSI) (See Appendix A) (Cools, & Van den Broeck, 2007) and self-efficacy, as measured by the Teachers' Sense of Efficacy Scale (TSES) (See Appendix B) (Tschannen-Moran, & Hoy, 2001) of the teachers of ELL students. In addition, the researcher investigated (a) characteristics of teacher demographics; (b) sense of competence; and (c) sense of efficacy, when teaching ELL students and while working in a public school district in Southeast Florida.

Data was collected from May 10, 2011 through June 15, 2011. The CoSI, TSES and demographic characteristics surveys were combined onto the Qualtrics website. The primary investigator used a convenient sample that consisted of K-12 teachers who taught ELL students of any level and general classroom teachers in Miami-Dade County Public Schools. Principals of elementary, middle, high schools and K-8 centers with high ELL student population were contacted via email. Once the principals agreed to include their schools on the study, the primary investigator forwarded an invitation letter to participate in the study and a link to access the survey. Approximately, 1157 teachers were invited to participate on the study. A total of 103 teachers responded to the surveys, and 89 completed all the three surveys.

Coding the Data

The researcher printed the data results from the SPSS version 19.0 for the following: (a) 17-item teacher demographic survey; (b) 18-item cognitive style indicator; and (c) 24-item teacher efficacy survey to visually determine responses inconsistencies. Each participant was coded in the sequential order of completing the instruments with the 59 responses to all three

surveys aligned horizontally. The researcher was able to detect the exact amount of participants failed to either complete the survey altogether or answer a considerable number of questions on each instrument.

The teacher demographics resulted as follows: (a) (n=28) males and (n=61) females; (b) (n=8) elementary school teachers and (n=79) from secondary level; (c) (n=66) teachers who taught ELL students of any level and (n=21) who do not teach ELL students; and (d) (n=63) general classroom teachers and (n=25) were not general classroom teachers (See Appendix I).

Descriptive Statistics of the Demographic Variables

The teacher demographic characteristics were designed in the following areas: (a) gender; (b) age; (c) race; (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program attended; (i) marital status; (j) familial status; (k) teach ELL students; (l) ESOL endorsement; (m) general classroom teacher; (n) teaching level; (o) number of years teaching; (p) number of years teaching ELL; and (q) educational level. The demographic survey served the same reliability and validity requirements, along with the responses to the items, from the self-reporting participants (See Appendix I). The principal investigator used Pearson Chi-Square, a statistical test, to seek association between the variables. Pearson Chi-Square was used when seeking association between nominal and ordinal data.

Gender

The initial phase of the analysis began with descriptive statistics evaluating the categorical variable of demographics. The first demographic variable that was measured was the gender of the respondents. Gender was a reflection of the high percentage of female teachers employed in the field of education across the nation with 59.8% of the respondents in the study

being female and 27.5% male. The Pearson Chi-Square indicated that gender does not appear to be a significant predictor when associated with the index variables.

Age

Age was divided into five categories that each included a range of 10 years. The majority of the participants fell in two age groups, 51-one years old and higher, at a total of 33.7% and 41-one years old and higher, at a total of 29.2%, while 37.1% of the respondents were between the ages of 20 and 40. The data obtained from Pearson Chi-Square Test indicated that age and creativity appeared to be associated with older teachers being more creative in the classroom (See Table 4-1).

Table 4-1, *Age and Creativity*

Chi-Square Tests			
	Value	df	Asymp. Significance (2-sided)
Pearson Chi-Square	51.444a	40	.106
Likelihood Ratio	56.968	40	.040
Linear-by Linear Assoc.	6.261	1	.012
N. of Valid Cases	80		

a. 54 cells (98.2%) have expected count ≤ .5. The minimum expected count is .04.

Race

Race resulted contrary of the nation's demographics, with 53.4% of the participants falling in the Hispanic category. The second larger with 29.5% of participants was the Caucasian category, followed by 14.8% African American, and finally Asian and other races

with 1.1% each. The Pearson Chi-Square results indicated that race does not appear to be significant when associated with the index variables.

First Language

The first language of more than half of the total participants, 53.9% of the total population, stated that English was their native language, while the first language of 38.2% of respondents was Spanish. The remaining teachers were as follows: (a) 6.7% marked "other" as their native language and (b) 1.1% marked Creole. The results obtained from the Pearson Chi-Square Test reflected no association between first language and the index variables.

Bilingual

The majority of all participants, 66.7% of the total population, stated they were bilingual. The remaining participants, 33.3% were not bilinguals. The data obtained from Pearson Chi-Square Tests indicated that bilingual was almost statistically significant when compared to planning (See Table 4-2).

Table 4-2, *Bilingual and Planning*

Chi-Square Tests			
	Value	df	Asymp. Significance (2-sided)
Pearson Chi-Square	17.288a	10	.068
Likelihood Ratio	17.804	10	.058
Linear-by Linear Assoc.	.640	1	.424
N. of Valid Cases	78		

a. 17 cells (77.3%) have expected count ≤ .5. The minimum expected count is .32.

Place of Birth

The place of birth of the participants revealed that 59.1% of all teachers were U.S. born, while the rest 39.8% were born outside of the U.S. There was 1.1% that did not answer this question. The data from Pearson Chi-Squeare Teste indicated that Place of Birth did not appear to be significant when compared to the index variables.

Place of Formal Education

Almost all of the participants, 90.7% of the total population, stated that the place where they received formal education was in the U.S., while 9.3% received formal education outside of the U.S. Place of Formal Education did not appear to be significant when compared to the index variables as revealed on the data from the Pearson Chi-Square Test.

Type of ESOL Program If Attended School in the U.S.

A large majority of participants, 71.3%, did not attend any ESOL program while attending school, while 17.2% received English only (inmersion) education. Only 6.9% attended bilingual programs, followed by 4.6% of the participants, who were in pull-out programs to receive ESOL education while attended schools in the U.S. The data from Pearson Chi-Squeare Teste indicated that the Type of ESOL Program If Atteded School in the U.S. did not appear to be significant when compared to the index variables.

Marital Status

The larger group of participants, 53.5% were married at the time of the research study was conducted. The second larger group with 22.1% reported to be single, while 19.8% reported to be divorced. Finally, only 2.3% were widows, and 2.3% were in the category of other. The

results obtained from the Pearson Chi-Square Test reflected no association between marital statutes and the index variables.

Familial Status

The data revealed that the familial status of the participants 55.7% of all teachers had one or more children. Only 28.4% of all teachers in the study had no children at all, while 15.9% had three or more children. The data from Pearson Chi-Square Test indicated that there a significant association between the familial status and knowing cognitive style. In addition, the primary investigator suggests that familiar status and classroom management should be tested again to determine whether the mixed results are significant (See Table 4-3).

Table 4-3, *Familial Status and Classroom Management*

Chi-Square Tests			
	Value	df	Asymp. Significance (2-sided)
Pearson Chi-Square	74.548a	24	.035
Likelihood Ratio	41.119	24	.016
Linear-by Linear Assoc.	2.643	1	.104
N. of Valid Cases	80		

a. 96 cells (100%) have expected count ≤ .5. The minimum expected count is .18.

Teach ELL Students of Any Level

The majority of the participants in the study, 75.9%, taught ELL student of any level, while only 24.1% reported no teaching ELL students. Teach ELL Students of Any Level did not

appear to be significant when compared to the index variables as revealed on the data from the Pearson Chi-Square Test.

ESOL Endorsement

A large number of participants, 64.8% reported to be ESOL endorsed, while 35.2% did not possess an ESOL endorsement certificate. The Pearson Chi-Square Test indicated a significant association for student engagement and classroom management (See Table 4-4 and Table 4-5).

Table 4-4, *ESOL Endorsement and Student Engagement*

Chi-Square Tests			
	Value	df	Asymp. Significance (2-sided)
Pearson Chi-Square	40.697a	29	.073
Likelihood Ratio	53.958	29	.003**
Linear-by Linear Assoc.	5.515	1	.019*
N. of Valid Cases	71		

a. 60 cells (100%) have expected count ≤ .5. The minimum expected count is .37.

Table 4-5, *ESOL Endorsement and Classroom Management*

Chi-Square Test			
	Value	df	Asymp. Significance (2-sided)
Pearson Chi-Square	35.154a	23	.050*
Likelihood Ratio	44.776	23	.004**
Linear-by Linear Assoc.	5.250	1	.022*
N. of Valid Cases	73		

a. 48 cells (100%) have expected count ≤ .5. The minimum expected count is .36.

General Classroom Teacher

A large number of participants, 71.6% reported to be general classroom teachers, while 28.4% were not under the category of general classroom teacher. General Classroom Teacher did not appear to be significant when compared to the index variables as revealed on the data from the Pearson Chi-Square Test.

Teaching Level

The participants in the study all worked in the K-12 school system in Miami-Dade County Public Schools, including elementary, middle, high schools, and K-8 centers. The researcher condensed the grade level categories into two levels: (a) primary (Kindergarten to grade 5) and (b) secondary (grade 6 to 12). The largest group of participants, 90.8%, was teachers who taught at secondary level, while only 9.2% were teachers who taught at elementary level. Teaching Level was not statistically significant when compared to the index variables as indicated on the data obtained from the Pearson Chi-Square Test.

Number of Years Teaching

The majority of the participants in the study, 84.2%, were experienced teachers with six or more years of teaching experience. A slightly lower percentage of the total population, 55.7%, had been teachers between 11 to 15 years. Veteran educators with 16 years or more of experience comprised 44.4% of the total population. New teachers fell in the next category, with 15.9%, teaching between 1 and 5 years. Next, 28.4% were veteran teachers with 16 to 25 years of experience and 16% were teachers with 26 or more years of experience. The data obtained from Pearson Chi-Square Test indicated there was an association between the Number of Years

Teaching and Instructional Strategies, while had no association with Classroom Management. (See Table 4-6).

Table 4-6, *Number of Years Teaching and Instructional Strategies*

Chi-Square Test			
	Value	df	Asymp. Significance (2-sided)
Pearson Chi-Square	160.842a	126	.020*
Likelihood Ratio	134.553	126	.285
Linear-by Linear Assoc.	5.250	1	.098
N. of Valid Cases	69		

a. 154 cells (100%) have expected count ≤ .5. The minimum expected count is .09.

Number of Years Teaching ELL Students

The data revealed that 30.4% of the participants have taught ELL from one to five years. The second larger number of participants, 26.6%, has been teaching ELL students from six to ten years, followed by 16.5%, who have taught ELL students between eleven to fifteen years. Teachers who have been teaching ELL students from sixteen to twenty years were of 11.4% of the total population, followed by 15.2%, who have been teaching ELL students between twenty one to thirty years. Number of Years Teaching ELL Students did not seem to be statistically significant according to the data obtained from the Pearson Chi-Square Test.

Educational Level

More teachers, a total of 64% of the population, held master's degrees, doctorates, or other specialization degrees. The five categories for educational level were as follows: (a)

undergraduate; (b) bachelor's; (c) master's; (d) specialist's; and (e) doctorate. Of all teachers who responded, 46.1% had earned master's degrees, 33.7% had bachelor's degree, 14.6% held specialist's degree, 3.4% had doctorate degree, and 2.2% had undergraduate degree. The Educational Level did not have an association with any of the index variables according to the Pearson Chi-Square Test data.

Cronbach Alpha

Cronbach Alpha Coefficients were calculated on the CoSI and the TSES to access reliability (See Table 4-7). Cronbach Alpha is a coefficient of reliability not a statistical test. It is a method to measure the reliability of a research instrument. It measures of internal consistency of a scale, that is, the extent to which all items within the instrument measure the same thing (George & Mallery, 2005). The coefficient alpha varies between 0 and 1, with a greater internal consistency achieved when alpha is closer to 1. The threshold for internal consistency reliability in social research is .7 (Nunnally, 1978).

Results from the analysis of the CoSI were classified into three factors: (a) Knowing style; (b) Planning style; and (c) Creative style. The analysis from the TSES was categorized into the following: (a) student engagement; (b) instructional strategies; and (c) classroom management. Reliability scores were in the acceptable range for both CoSI and TSES as shown in Table 4-7.

Cronbach Alpha Reliability Coefficients for the CoSI and the TSES

Scale Instrument	Coefficient Alphas
Cognitive Style Indicator (CoSI)	.76
Teacher Self-Efficacy Scale (TSES)	.95
Overall/Combined	.94

Descriptive Statistics from the Cognitive Style Indicator (CoSI)

The Cognitive Style Indicator (CoSI) developed by Cools & Van den Broeck (2007) to measure the variable of cognitive styles. The instrument measures analytic versus holistic thinking and conceptual versus experiential thinking using the CoSI. Combining the two dimensions yielded the following four cognitive styles: (a) knowing style; (b) planning style; (c) creating style; and (d) cooperating style. There were 18 questions in all that determined teachers' cognitive styles, based on the following Likert scale: (1) typifies me totally not; (2) typifies me rather not; (3) neutral; (4) typifies me rather well; and (5) typifies me totally. The principal investigator chose to condense the number 4 and number 5 choices due to the similarities in the questions. The knowing style included the following questions from the CoSI instrument: 2, 8, 13 and 15. The planning style was composed by the following questions: 3, 6, 9, 10, 12, 16, and 18, while the creative style was composed by the following questions: 1, 4, 5, 7, 11, 14, and 17. The primary investigator obtained the variables by computing all the responses for each subgroup.

The knowing style (analytical and conceptual) is used by individuals (a) with an analytical and conceptual thought process, and (b) who look at the facts and data. Analytical learners perceive (a) reality truthfully; and (b) grasp and retain information with details. Furthermore, the knowing individual is (a) task-oriented; (b) accurate; and (c) prefers complex problems for which to find obvious and coherent solutions. Knowing style emphasizes logic, objectivity, and precision (Cools & Van den Broeck, 2007).

The planning style learner (analytical and experiential) is to (a) create structure; (b) organize; (c) control; and (d) seek structured work environments. Planners highly value preparation and planning as a way to reach the objectives. The individuals are not risk takers, and encourage others to obey rules and agreements. Planning styles emphasizes structure, control, and routine (Cools & Van den Broeck, 2007).

The creative style (holistic and conceptual) is characterized by individuals who enjoy experimentation and creativity. Creative people view problems as opportunities and challenges. Holistic learners are averse to rules and procedures and enjoy some level of freedom. On the other hand, the cooperating style (holistic and experiential) is (a) valued by individuals who enjoy communication and interpersonal relationships; and (b) is geared toward experiential and practical solutions, while taking people's knowledge and ideas into account when making decisions. Cooperating people are (a) strong listeners; (b) sensitive; (c) people oriented; (d) team players; and (e) cooperative. Creative style emphasizes subjectivity, impulsivity, and openness to possibilities (Cools & Van den Broeck, 2007). The researcher derived the means, standard deviations, and variances for each of the CoSI factors (See Table 4-8). It was observed that the mean score for planning style domain was the highest followed by the mean score for creative style, with the knowing style considerably the lowest.

Table 4-8

Mean Scores, Standard Deviation, and Variance of CoSI Factors (n=103)

Factors	Knowing	Planning	Creative
N Valid	81	80	80
Mean	14.32	24.93	24.49
Std. Deviation	1.980	2.924	2.531
Variance	3.921	8.551	6.405

Teachers' Sense of Efficacy Scale (TSES)

The researcher used the Teachers' Sense of Efficacy Scale (TSES) developed by Tschannen-Moran & Hoy (2001) to measure the variables of teacher efficacy. The instrument indicated teachers' perceptions across three areas of teacher efficacy: (a) student engagement; (b) instructional strategies; and (c) classroom management. The participants' responses were based on 24 questions followed a 9 point Likert scale ranging from 1 to 9: (1-2) nothing; (3-4) very little; (5-6) some influence; (7-8) quite a bit; and (9) a great deal.

The questions pertaining student engagement included: 1, 2, 4, 6, 9, 12, 14, and 22. In addition, the questions regarding instructional strategies were: 7, 10, 11, 17, 18, 20, 23, and 24. Finally, classroom management included de following questions: 3, 5, 8, 13, 15, 16, 19, and 21. Additionally, means of self-efficacy scores were computed to determine the overall teacher self-efficacy. Higher TSES means indicated higher sense of teacher efficacy.

The researcher derived the means, standard deviations, and variances for each of the TSES factors (See Table 4-9). It was observed that the mean score for student engagement

domain was the highest followed by the mean score for classroom management with the mean score of instructional strategies being slightly lower.

Table 4-9

Mean Scores, Standard Deviation, and Variance of TSES Factors (n=103)

Factors	Student Engagement	Instructional Strategies	Classroom Management
N Valid	72	70	73
Mean	55.42	52.29	52.47
Std. Deviation	8.975	6.882	7.265
Variance	80.556	47.366	52.780

In the area of student engagement, the respondents scored relatively high on only two out of eight questions that observed how well teachers could effectively reach their students. First, 35.5% reported high levels of influence regarding how well teachers help students to believe in themselves and 28.6% helped students' value learning.

Contrary, the respondents' level of confidence was lower in the following areas of student engagement: (a) 26.3% of teachers helped student think critically; (b) 24.0% of teachers fostered student creativity; (c) 20.8% of teachers believed they could get through to the most difficult students; (d) 20.0% of teachers motivated students with low interest in school; (e) 19.5% of teachers helped improve the understanding of students who were failing; and (f) 9.1% felt could assist families in helping their children in school.

In the area of instructional strategies, teachers also demonstrated confidence in two out of eight questions that determined how well teachers could implement instructional strategies to meet the students' highest potential. The percentage of the two areas of strength in the area of instructional strategies were: (a) 42.5% believed they can respond to challenging questions from their students and (b) 38.2% were confident they could provide alternative strategies when students seem to have difficulties understanding to meet their needs.

The respondent felt less efficacious in the following areas of instructional strategies: (a) 28.0% believed they couldn't modify their lessons to meet the needs of individual students; (b) 26.0% felt they could gauge student's comprehension on the lessons already taught; (c) 24.7% were confident they could elaborate challenging questions for their students; (d) 22.1 used a variety of assessment strategies; (e) 21.8% provided considerable challenges for highly capable students; and (f) 19.5% felt they can implement alternative instruction in their classroom.

In the area of classroom management, teachers perceived themselves as a strong influence on four of the eight questions regarding to classroom management. The area that revealed the most confidence was making clear expectations about students' behavior with 42.7%. A great portion of the participants, 38.2% felt they can establish daily routines to maintain the classroom activities running smoothly, followed by 35.5% believed they can exert control over disruptive behavior in the classroom. Lastly, 33.8% were confident they could influence students to follow classroom rules.

Respondents scored lower in the following four areas of classroom management: (a) 29.3% were less confident in responding well to defiant students; (b) 27.6% believed they could establish a classroom management system with each group of students; (c) 20.8% felt they could

influence disruptive students; and (d) also 20.8% could keep disruptive students from ruining the entire lesson.

Subsequently, the researcher used Spearman's rho matrix to establish the correlation between the Cognitive Style Indicator (CoSI) and Teacher Self-Efficacy Scale (TSES). Spearman rho test is use to determine correlation among ordinal data for individual indicators of index values (See Table 4-10).

The data indicates a moderately correlation between the individuals whose primarily cognitive style is knowing and student engagement (r^2 = .369**, p=.002), instructional strategies ($r^{2=}$ .435**), and classroom management ($r^{2=}$ .450**). In addition, the data revealed that individuals with planning cognitive style were moderately related to instructional strategies ($r^{2=}$ .327**, p=.007) and classroom management ($r^{2=}$ .345**, p=.003). There is also a significant correlation between planning and student engagement (r^2 = .276**, p=.022) (See Table 4-10).

Table 4-10

Correlations						
Spearman's rho	Knowing	Planning	Creative	Student Engagement	Instructional Strategies	Classroom Management
Knowing						
C. Coefficient	1.000	.405**	.337**	.369**	.435**	.450**
Sig. (2-tailed)		.000	.003	.002	.000	.000
N	81	78	77	70	69	71
Planning						
C. Coefficient	.405**	1.000	.097	.276*	.327**	.345**
Sig. (2-tailed)	.000		.398	.022	.007	.003
N	78	80	78	69	66	70
Creative						
C. Coefficient	.337**	.097	1.000	.208	.161	.101
Sig. (2-tailed)	.003	.398		.088	.197	.411
N	77	78	80	68	66	69
Student Engagement						
C. Coefficient	.369**	.276**	.028	1.00	.712**	.792**
Sig. (2-tailed)	.002	.022	.088		.000	.000
N	70	69	68	72	68	68
Instructional Strategies						
C. Coefficient	.435**	.327**	.161	.712**	1.000	.894**
Sig. (2-tailed)	.000	.007	.197	.000		.000
N	69	66	66	68	70	67

Classroom Management						
C. Coefficient	.450**	.345**	.101	.792**	.894**	1.000
Sig. (2-tailed)	.000	.003	.411	.000	.000	
N	71	70	69	68	67	73

** Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2 tailed)

Main Analysis

The results of this study were analyzed using Spearman's Correlation Matrix to determine correlation among the dependent and independent variables. Spearman rho test is use to determine correlation among ordinal data for individual indicators of index values. In addition, the data was analyzed using Multiple Regression and Multiple Analysis of Variance (MANOVA) to explore the contribution of the independent variables described in the previous chapter. Multiple Regressions is a flexible method of data analysis used whenever the dependent variable is to be examined in relationship to the independent variables. Relationships may be nonlinear, independent variables may be quantitative or qualitative, and one can examine the effects of a single variable or multiple variables with or without the effects of other variables taken into account (Cohen, Cohen, West, & Aiken, 2003). The MANOVA is a general linear model that permits the researcher to identify group differences in the presence of one or more independent variables and several dependent variables (Field, 2005). In addition, the use of MANOVA examines the interaction between the independent variables and the differences between the groups, as well as reducing the occurrence of type I errors originated when used multiple ANOVAS.

Effects of Demographics in Cognitive Styles

The first research question was "Which teacher demographic characteristics have an association with cognitive styles (gender, age, race, first language, bilingual, place of birth, place of formal education, type of ESOL program if attended school in the U.S, marital status, familiar status, teacher of ELL students, ESOL endorsement, general classroom teacher, teaching level, number of years teaching, number of years teaching ELL students, and educational level attained)? It considered if teachers of ELL students demographics' information show an association with cognitive styles. The primary researcher used Spearman's Correlation Matrix to determine the connection between demographic characteristics and cognitive styles of teachers of ELL students.

Specifically, the researcher selected only the participants who identified themselves as teachers of ELL students (n=66) to address the first research question. Nonparametric Correlations (Spearman's rho) were used to determine association between demographic characteristics of teachers of ELL students and their specific cognitive styles index values (See Appendix J).

Results indicated that there was a strong correlation between: (a) age (.387); (b) race (-.421); (c) bilingual (.352) and teachers with creative style. There was also a significant correlation with place of birth (.264) and creative style, and a significant correlation between familial status (.278) and planning style. Surprisingly, there was no significant correlation with: (a) gender; (b) first language; (c) place of formal education; (d) type of ESOL program if attended school in the U.S; (e) marital status; (f) teacher of ELL students; (g) ESOL endorsement; (h) general classroom teacher; (i) teaching level; (j) number of years teaching; (k)

number of years teaching ELL students; and (l) educational level attained and knowing, planning and creative styles (See Appendix J).

Effects of Cognitive Styles and Self-Efficacy

The second research question was "Which cognitive style reveal the highest level of teacher efficacy?" It considered the between the three cognitive styles assessed, which one will demonstrate a higher association with self-efficacy levels. Again, the researcher selected only the participants who identified themselves as teachers of ELL students (n=66) to address the second research question. This question was explained using Multiple Regressions. The researcher used Multiple Regressions because it is a flexible method of data analysis used whenever the dependent variable is to be examined in relationship to the independent variables. The regression line indicates the best linear prediction of the dependent variable given the independent variable. Usually, there is a significant variation around the regression line.

R-Square (r^2) also known as the Coefficient of determination, used to determine variance in the linear regression. r^2 is 1 minus the ratio of residual variability. When r^2 values are small, the researcher can predict the independent variables are related to the dependent variable. This relationship is often expressed as the correlation coefficient r, which is the square root of r-square. In multiple regressions, r can assume values between 0 and 1. The direction of the relationship between the variables, the researcher must observe the signs (+ or -) of the regression. When regression is positive, then the relationship of this variable with the dependent variable is positive and vice versa. The researcher also determined the p values, which explained the probability of seeing the same results of the correlation occurring by chance. A p value of .05 or less is a value generally accepted at which to reject the null hypothesis.

The analysis of the data revealed a positive correlation between cognitive styles and teacher efficacy. There was a significant correlation between planning style and the three domains of teacher efficacy. The correlation values were as follows: (a) student engagement .031; (b) instructional strategy .029; and (c) classroom management .041 (See Table 4-11). In addition, the variance (r^2) and significance (p) of the correlation were also determined for each index. The data indicated student engagement variance of r^2= .104 and significance of p= .030; instructional strategies the variance value was r^2=.201 and significance of p=.004; and classroom management r^2=.240 and p=.001 (See Table 4-11)

Table 4-11 Multiple Regressions

	Student Engagement	Instructional Strategies	Classroom Management
Knowing			.041*
Planning	.031*	.029*	.041*
Creative			.910*
r^2	.104	.201	.240
P	.030	.004	.001

** Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2 tailed)

Effects Demographics in Self-Efficacy

The third research question was "which teacher demographic characteristics show the greatest level of teacher efficacy?" It considered if teachers of ELL students with different demographic information show a difference in their sense of self-efficacy. The researcher

utilized a MANOVA to compare the teachers' level of self-efficacy and the difference between demographic variables contrasting TSES scores of teachers of ELL students by: (a) gender; (b) age; (c) race; (d) first language; (e) bilingual; (f) place of birth; (g) place of formal education; (h) type of ESOL program if attended school in the U.S.; (i) marital status; (j) familial status; (k) teacher of ELL students; (l) ESOL endorsement; (m) general classroom teacher; (n) teaching level; (o) number of years teaching; (p) number of years teaching ELL students; (q) and (r) educational level attained.

Results indicated that there was a strong correlation between teachers who were enrolled in ESOL programs when attended school in the U.S. and student engagement. In addition, there was a significant correlation between teachers who were enrolled in ESOL programs when attended schools in the U.S. and classroom management. There was a significant finding concerning ESOL endorsement with student engagement and classroom management.

Furthermore, the results revealed that although there was not statistically significance between level of education attained by teachers and instructional strategies used in the classroom, the values were very close. Similar results were found with familial status and teachers who taught ELL of any level and classroom management. Surprisingly, there were no significant differences for: (a) gender; (b) age; (c) race; (d) first language; (e) place of formal education; (f) marital status; (g) general classroom teacher; (h) teaching level; (e) number of years teaching; and (f) number of years teaching ELL students. The primary researcher created a modified version of the results when used MANOVA. The results on Table 4-12 were the demographic values with a significant correlation with self-efficacy (See Table 4-12).

Table 4-12

MANOVA	Student Engagement		Instructional Strategies		Classroom Management	
	f	p	f	p	f	p
ESOL Program						
if schooled in U.S	2.853	.001**			2.109	.015*
ESOL Endorsement	1.899	.029*			1.978	.023*
Educational level			1.714	.062		
Familial status					1.718	.056
Teacher of ELL						
of any level					1.712	.058

*p≤ .05 **p≤ .01

Research Question 1

The first research question asked if there was a relationship between the demographic characteristics (gender, age, race, first language, bilingual, place of birth, place of formal education, type of ESOL program if attended school in the U.S, marital status, familiar status, teacher of ELL students, ESOL endorsement, general classroom teacher, teaching level, number of years teaching, number of years teaching ELL students, and educational level attained) of teachers of ELL students and cognitive styles (knowing, planning, and creative).

The researcher derived the means, standard deviations, and variance for each of cognitive styles (knowing, planning and creative). The data indicated that the mean scores for planning style were the highest (24.93) followed by the creative style (24.49) and the knowing style considerably the lowest (14.32).

From the correlation established between the demographic characteristic of teachers of ELL students and cognitive styles, the results indicated that age was strongly related to the creative style (.387) (See Appendix J). Since the majority of the participants reported to be Hispanic, the researcher did not specifically determined correlation between races. However, race was strongly related to creative style (-.421) (See Appendix J) and the direction of the relationship is negative. Furthermore, the bilingual characteristic had also a strong relationship with creative style (.352) (See Appendix J). Place of birth revealed a significant negative relationship with creative styles (-.264) (See Appendix J).

Research Question 2

The second research question asked which cognitive style revealed the highest level of teacher efficacy. From the comparison of the cognitive styles and teacher's efficacy, the data indicated a strong correlation between the individuals whose primarily cognitive style was knowing and student engagement (.369), instructional strategies (.435), and classroom management (.450). In addition, individuals with planning style showed a strong correlation with instructional strategies and classroom management. There was also a significant correlation between planning and student engagement (.276).

The analysis of Multiple Regressions indicated that planning was strongly related to student engagement (.031), instructional strategies (.029), and classroom management (.041). In addition, knowing style was strongly related to classroom management (.041) and creative style was strongly related to classroom management (.910).

Research Question 3

The third research question asked which teacher demographic characteristics show the greatest levels of teacher efficacy. From the descriptive statistics, employing the Pearson Chi-Square, the data indicated a significant association between ESOL endorsement and student engagement (40.69), as well as ESOL endorsement and classroom management (35.15). The analysis of mean scores, standard deviations, and variance for each of the teacher efficacy index revealed the mean score for student engagement domain was the highest followed by the classroom management, and instructional strategies being the lowest.

The principal researcher explored the differences in perception of teacher efficacy by demographic index groups using MANOVA analysis. The results indicated there was a significant correlation between participants who attended some type of ESOL program when schooled in the U.S. and student engagement (f=2.853, p=.001**) and classroom management (f=2.109, p=.015*). Moreover, ESOL endorsement showed a significant correlation with student engagement (f=1.899, p=.029*) and classroom management (f=1.978, p=.023*). In addition, the MANOVA analysis results revealed that although educational level was close to affect instructional strategies (f=1.714, p=.062), was not statistically significant. The primary researcher attributed this factor to the small sample size, recommending further retest with a larger sample size to determine whether the level of education attained by the participants, affect the use of instructional strategies. Similar results were found in the areas of familial status (f=1.718, p=.056), teachers who teach ELL students of any level (f=1.712, p=.058), and educational level attained by the teachers (f=1.782, p=.045) were close to be statistically significant to classroom management. The primary researcher also recommends re-test with a larger sample size to determine the demographic index will affect classroom management.

Hypothesis 1

H1. The demographic characteristics of ELL teachers will have an association with cognitive styles.

The researcher examined whether teachers' demographic characteristics had an association with cognitive styles. The Spearman's Correlation Matrix was used to determine the connection between demographic characteristics and cognitive styles of teachers of ELL students. The results indicated that this hypothesis was partially supported. Teachers' age was strongly related to the creative style (.387). Race was also strongly related to the creative style (-.421); along with bilingual (.352) and teachers with creative style. There was also a significant correlation with place of birth (.264) and creative style, and a significant correlation between familial status (.278) and planning style.

Hypothesis 2

H2.Cognitive styles will influence teachers' self-efficacy.

The researcher investigated whether the cognitive styles will have an influence on teachers' self-efficacy. To assess this relationship, the researcher used Multiple Regressions. This hypothesis was partially supported. The analysis of the data revealed a positive correlation between cognitive styles and teacher efficacy. There was a significant correlation between planning style and the three domains of teacher efficacy. The correlation values were as follows: (a) student engagement .031; (b) instructional strategy .029; and (c) classroom management .041 (See Table 4-11).

Hypothesis 3

H3.ELL teacher demographic characteristics will vary with different levels of teacher efficacy.

The researcher investigated which demographic characteristics will demonstrate higher levels of teacher efficacy. MANOVA was used to determine whether a relationship existed. This hypothesis was partially supported. The results of the MANOVA analysis indicated there was a significant correlation between participants who attended some type of ESOL program when schooled in the U.S. and student engagement (f=2.853, p=.001**) and classroom management (f=2.109, p=.015*). Moreover, ESOL endorsement showed a significant correlation with student engagement (f=1.899, p=.029*) and classroom management (f=1.978, p=.023*). In addition, the MANOVA analysis results revealed that although educational level was close to affect instructional strategies (f=1.714, p=.062), was not statistically significant. Place of birth also had a significant correlation with student engagement, as well as ESOL endorsement.

Chapter V will present a summary of the findings, conclusions, limitations, recommendations for future research, and implications for practice pertaining to this study, based on the literature and findings related to teacher self-efficacy, instructional strategies, and teacher demographic characteristics among teachers of ELL students.

CHAPTER V

DISCUSSION

The purpose of the non-experimental exploratory correlational study was to explore a pattern in which teachers cognitions had an effect on teacher competencies. In particular, the study sought to determine a possible connection between cognitive styles as measured by the Cognitive Styles Indicator (CoSI) (See Appendix A) (Cools, & Van den Broeck, 2007) and self-efficacy as measured by the Teachers' Sense of Efficacy Scale (TSES) (See Appendix B) (Tschannen-Moran, & Hoy, 2001).

The theory of Multiple Intelligences was the first theory to distinguish the various cognitive strengths and different cognitive styles people possessed (Gardner, 2006). Human intelligence was not regarded as a one-dimensional approach, as it had been perceived before. For the first time, intelligence was perceived as a multi-dimensional approach that took into consideration other areas of human action. Moreover, the theory of MI encompassed eight distinctive forms of intelligences including: (a) linguistic; (b) logical-mathematical; (c) spatial; (d) musical; (e) bodily kinesthetic; (f) interpersonal; (g) intrapersonal; and (h) naturalistic intelligence. The literature indicated that when MI was used in ELL classrooms, students were provided with the opportunity to interact in meaningful environments while learning the target language with monolingual students.

The literature indicated a number of theories that shaped human cognition and behavior. Cognition, as described by the Social Learning Theory, resulted in an important factor in social learning in terms of expectations. Rotter (1954) was responsible for creating the Social Learning Theory of Personality. According to Rotter, behavior was determined by two types of

expectancies: (a) the expected outcome of a behavior and (b) the value a person placed on the outcome (Rotter, 1954).

Bandura (1977) described the social aspect of learning in which people learned by (a) observing; (b) imitating; and (c) modeling others. The Social Learning Theory, applied to English language minority students, was more effective when the student learned the behavior and the norms of the new environment, while being given the opportunity to re-enact the modeled behavior in an appropriate setting.

The term self-efficacy, from the theory developed by Bandura (1997), distinguished the capacity of a person to perform certain goal-oriented tasks that led to an individual's expectation for success. Bandura expanded Rotter's Social Learning Theory of Personality by arguing that when human learning occurs by the social interactions, people engaged in the following behaviors: (a) reciprocal interactions; (b) enactive and vicarious learning; and (c) distinction between learning and performance.

This study investigated the relationship between the cognitive styles of teachers of ELL students and teacher efficacy. In addition, the study sought to explore if teacher demographics influenced levels of teacher efficacy. The primary investigator used a convenient sample to reach the target population that consisted of K-12 teachers who taught ELL students or subject area teachers in Miami-Dade County Public Schools.

The primary investigator hypothesized the following: (a) the demographic characteristics of teachers of ELL students would have an association with cognitive styles; (b) the cognitive styles of teachers of ELL students would affect teachers' self-efficacy; and (c) the ELL teachers'

demographic characteristics would vary with different levels of teacher efficacy in the areas of: (a) student engagement; (b) instructional strategies; and (c) classroom management.

The independent variables were the participants' scores on the Cognitive Styles Indicator Scale (CoSI), which determined the cognitive styles or learning competency of teachers of ELL students and subject area teachers. The participants responded to an 18-item survey, on a Likert scale from 1 to 4, which were then coded to determine teachers' cognitive styles. The other independent variables were the teachers' demographic characteristics.

The dependent variable was the teachers' self-efficacy which encompassed: (a) student engagement; (b) instructional strategies; and (c) classroom management, which were coded according to the teachers' responses to the Teachers' Sense of Efficacy Survey (TSES).

Both collective teacher efficacy and individual teacher efficacy required teachers to rate their responses to two statements based on a 5-item Likert scale (Tschannen-Moran, 2001). The individual teacher's efficacy referred to the teacher's personal beliefs about their ability to positively affect student achievement.

The teachers' sense of efficacy influenced (a) the classroom environment; and (b) an array of instructional practices in the classroom (Bandura, 1997). Moreover, a positive correlation was determined between (a) higher levels of teacher efficacy; (b) student engagement; and (c) academic achievement among culturally diverse students (Tucker, Porter, Reinke, Herman, Ivery, Mack, and Jackson, 2005). Another study reported a positive relationship between teachers' sense of efficacy and English language proficiency (Chacon, 2005). Studies that related instructional strategies and self-efficacy to student achievement

yielded a positive relationship between student self-efficacy and student performance (Anjun, 2006; Maier & Curtin, 2005; Wadsorth, Husman, Duggan, & Pennington, 2007).

Conversely, teachers with lower self-efficacy were perceived as being less capable and vulnerable when meeting the students' needs of unmotivated students (Gibson & Dembo, 1984). The literature documented the influence of self-efficacy and its role on the Social Cognitive Theory, which was grounded on the assumption that one's personal beliefs of social cognition are the core of one's self-efficacy (Bandura, 2001).

The results of the study indicated a partial corroboration of the hypotheses. The primary investigator attributed these results to the small sample size. Consequently, more research in the areas relating to cognitive styles and teacher's efficacy would be necessary to confirm the results.

Conclusions

Chapter 5 highlights the importance of understanding the interaction between (a) teachers' self-efficacy; (b) demographic characteristics; and (c) the instructional strategies of the teachers of ELL students. Multiple Regressions and Multivariate Analyses indicated that teachers' self-efficacy could be influenced by demographic characteristics. Additionally, the cognitive styles could influence teachers' self-efficacy, which ultimately influenced the performance of the ELL students.

The researcher's first hypothesis stated that the demographic characteristics of ELL teachers would have an association with the cognitive styles. The population of ELL teachers, due to the small sample size, was limited. However, the results indicated that there was a

correlation between the demographic characteristics and cognitive styles of the teachers of ELL students. The results revealed a stronger indicator concerning: (a) age; (b) race; and (c) bilingual and creative style. There was a significant finding concerning the place of birth and creative style, in addition to familial status and planning style.

Surprisingly, there was no significant correlation with: (a) gender; (b) first language; (c) place of formal education; (d) type of ESOL program if attended school in the U.S; (e) marital status; (f) teacher of ELL students; (g) ESOL endorsement; (h) general classroom teacher; (i) teaching level; (j) number of years teaching; (k) number of years teaching ELL students; (l) educational level attained; (m) and the knowing, planning and creative styles. The primary investigator attributed these findings to the small sample size. Further research is necessary to corroborate the findings.

The second hypothesis explored whether cognitive styles were related to self-efficacy. The findings of the study suggested that cognitive styles and self-efficacy were related. Specifically, the study focused on the three cognitive styles identified in the literature: (a) knowing; (b) planning; and (c) creativity (Cools, & Van den Broeck, 2007). The objective in the study was to determine if there was a correlation between the cognitive styles of teachers of ELL students with the different levels of self-efficacy.

Based on the interpretations of the data analyses of research questions and hypotheses, specific conclusions were drawn. The analysis revealed a positive correlation between cognitive styles and teacher efficacy, in particular with teachers whose primary cognitive style was planning. The self-efficacy levels were significant in its three domains (student engagement, instructional strategies, and classroom management). In addition, teachers whose primary

cognitive styles were knowing and creativity resulted in being significant in one of the three areas of teacher efficacy (classroom management). The findings revealed that teachers of ELL students with the planning style had the highest levels of teacher's efficacy.

The third hypothesis examined the effect of teacher demographic characteristics on teachers' self-efficacy. The results indicated that there was a strong correlation between teachers who were enrolled in ESOL programs while attending schools in the U.S. and student engagement. In addition, there was a significant correlation between teachers who were enrolled in ESOL programs in the U.S. and classroom management. There was a noteworthy finding concerning ESOL endorsement with student engagement and classroom management.

Furthermore, the results revealed that although there was no statistical significance between the level of education attained by teachers and instructional strategies used in the classroom, the values were close. Similar results were found with the familial status and the teachers who taught ELL of any level and classroom management. Surprisingly, there were no significant differences for: (a) gender; (b) age; (c) race; (d) first language; (e) place of formal education; (f) marital status; (g) general classroom teacher; (h) teaching level; (e) number of years teaching; and (f) number of years teaching ELL students. The researcher considered that no conclusions could be drawn at this time due to the sample size. However, more research will be needed to confirm the effect of the demographic characteristics on teachers' efficacy.

Teacher Demographics

The researcher examined the relationship between teachers' demographic characteristics and cognitive styles. The results indicated that: (a) age; (b) race; and (c) bilingualism were

related to creative style. The results were limited to the small sample size and the convenient sample. The majority of the participants reported to be experienced, Hispanic, and bilingual teachers. The researcher suggests that further research be conducted in the future to ascertain whether or not different geographic regions might or might not yield similar results.

On the other hand, the principal investigator examined the effect of demographic characteristics on teacher efficacy. The results suggested that there was a strong correlation between teachers who were enrolled in ESOL programs, while attending school in the U.S., and student engagement. The finding was crucial to the target population of teacher of ELL students. Teachers who participated in any type of ESOL program seemed to engage students to a higher degree in the learning process. In addition, there was a significant correlation between teachers who were enrolled in ESOL programs and classroom management, revealing that the teachers had better control of students in the classroom. Teachers with more professional development in the area of diverse populations were more efficacious in engaging students, as well as exhibiting more control in the classroom.

Although there was no statistical significance between the level of education attained by teachers and the instructional strategies implemented in the classroom, the values were close. Similar results were found with familial status and teachers who taught ELL of any level and classroom management.

Cognitive Styles

The literature revealed the theory of Multiple Intelligence was the first to recognize that people possessed various cognitive strengths and different cognitive styles (Gardner, 2006).

Human abilities were considered forms of intelligence when a human's intellectual competence was comprised of the following: (a) a full range of intelligences; (b) differentiated intellectual profiles, including individuals with similar genetic information but different life experiences; and (c) high levels of intelligence (Gardner, 1983).

In an attempt to understand the different ways that learners perceive information within the context of the instructional environment, the cognitive style was characterized by two fundamental cognitive style dimensions: (a) analytic versus holistic thinking; and (b) conceptual versus experimental thinking (Leonard & Straus, 1997).

Identifying cognitive styles was beneficial to ELL educators due to the following: (a) ELL students come from different language backgrounds and sometimes differ from one another in learning style preferences; (b) variables such as gender, length of time in the United States, length of time studying English in the United States, field of study, level of education, age, influential learning style; and (c) modifications and extensions of ELL student learning styles that occur with changes in academic environment and experience (Reid, 1987).

The literature revealed that students, who were from non-mainstream cultures, often exhibited a different kind of knowledge, that was relevant to the cultures and lives of the individuals, while at school. Teachers often overlooked the distinct forms of intelligence and adaptive knowledge, resulting in an inability to provide the scaffolding that students needed to foster further learning in order to achieve a high quality education (Grigorenko, Meier, Lipka, Mohatt, Yanez, and Sternberg, 2004).

The results of the study confirmed that identifying teachers' cognitive styles could be crucial to the education of ELL students and could potentially impact academic achievement.

The results indicated that teachers of ELL who were planners, possessed higher levels of teachers' efficacy in the three domains: (a) student engagement; (b) instructional strategy; and (c) classroom management. Although, more research is needed in the area of cognitive styles and its impact on student achievement, the results of the study revealed a positive correlation.

Teacher Efficacy

The Social Cognitive Theory posited that learning took place when individuals engaged in the following behaviors: (a) reciprocal interactions; (b) enactive and vicarious learning; and (c) distinction between learning and performance. Reciprocal interactions explained human behavior in a framework of reciprocal interactions between (a) human factors; (b) environment variables; and (c) behavior (Bandura, 1997).

Self-efficacy beliefs also had an effect on the individual's thought processing and emotional reactions to thoughts. High efficacious individuals, demonstrated serenity when faced with difficult task and activities, whereas low efficacious individuals felt that activities were more difficult than what they really were, which in turn manifested signs of: (a) anxiety; (b) stress; (c) depression; and (d) low levels of creativity in how to problem solve (Pajares, 2002).

Teachers with high levels of efficacy motivated their students to be successful. August and Shanahan (2006) highlighted that individual differences affected English literacy development, in particular ELL students with different (a) educational background; (b) age; (c) motivation; (d) socioeconomic status; (e) literacy skills in native language; and (f) mastery of content knowledge.

Bandura (1997) posited that student's expectations for success were composed of two types: (a) efficacy; and (b) outcome. Efficacy expectations were formed on the grounds of whether or not an individual felt capable of executing the required behavior needed for success. On the other hand, the outcome expectation was concerned with the individual's beliefs that specific actions would lead to the desired outcomes.

The results of this research study revealed an agreement with the literature regarding high levels of teacher efficacy impacting student learning. The data analysis yielded a positive correlation between cognitive styles and teacher efficacy. In particular, the teachers whose primary cognitive style was planning exhibited significant levels of self-efficacy in its three domains (a)student engagement; (b) instructional strategies; and (c) and classroom management. In addition, specific demographic characteristics also seemed to have an effect on teacher efficacy.

The understanding achieved from embarking in self-efficacy research would assist administrators and school districts with large ELL student populations by helping minority students (a) reach proficiency level; (b) become lifelong learners; and (c) develop into successful citizens of the United States.

Limitations

The conclusions of the study were based on a convenient sample of teachers of ELL students in Miami-Dade County Public Schools District. The study did not take into account some other factors that might influence teachers' self-efficacy, such as (a) collective teacher self-efficacy; and (b) the principal's leadership style. Research indicated a strong relationship between teachers' self-efficacy and perceived collective efficacy. According to Goddard, Hoy &

Woolfolk (2004), a strong sense of collective efficacy enhanced teachers' self-efficacy beliefs and a weak collective efficacy decreased teachers' sense of efficacy.

Other limitations that may have influenced the results were:

1. The length of the demographic survey used was 17-questions, and therefore could have discouraged additional teacher participation in the study. The study took place from May 10 through June 15, which is the time when teachers were about to conclude the school year in Florida. Many teachers had a limited amount of time with the closing of the school year to complete a survey of three separate surveys, totaling 59 questions.
2. The online survey format did not work properly. There were some complications during the administration of the survey link, which probably hindered the amount of participants. Some interested participants emailed the principal researcher directly to report the problem. Other teachers with a limited amount of time were probably just discouraged to participate.
3. The term "teachers of ELL students" may have confused teachers who probably thought the study was targeted to only ESOL teachers.
4. Due to the pressures of the end of the school year and all the responsibilities must fulfill, the principals might not have sent the reminders to complete the survey to staff members.
5. The convenient sample of teachers of ELL students did not produce a large enough representation of teachers who teach ELL students. The principal researcher made several attempts to have different departments endorse the study in order to be able to send the survey to all the employees in the district. However, due to the current school board regulations, the practice was not allowed.

6. The self-selected nature of the data collection could have introduced a selection of bias, thus representing a threat to the external validity. Additionally, the self-reported nature of the study had the potential to introduce errors as the individuals' strong sense of efficacy may not have been well-grounded or authentic, since other factors may have influenced educators' responses.
7. Ethnic diversity was limited for this survey. A large number of participants were of Hispanic ethnicity due to the ethnic makeup of the South Florida region. In addition, due to the restrictions regarding survey dissemination, the principal investigator targeted the areas with a large ELL population, and mainly high schools and K-8 center that held the largest amount of teachers and students.
8. The sample in the study was confined to K-12, with a large ELL student population. Therefore, the teachers of ELL students responded on a voluntary basis, due to availability. The use of the convenient sample limited the conclusions obtained within the study to the population represented by the sample. The inability to generalize the results to different types of populations was perhaps one of the largest limitations of the study.

Recommendations for Future Research

The study was limited to the respondents who could be reached through email or teachers who were encouraged by the principals and were willing to respond to an online survey about cognitive styles and self-efficacy. Participant responses were limited to the schools whose principals agreed to include the schools in the study. Future studies could address the limitation by conducting onsite surveys where all teachers of ELL students could participate. However, research studies needed in the school district are often limited to small samples or areas, due to

the unwillingness of some principals to participate, even though the researchers might have the proper documentation to conduct the study in the school district.

Understanding cognitive styles and individual differences manifested by the research results affected (a) learning; (b) decision making; (c) communication; and (d) information processing in substantial ways (Van Den Broeck, Vanderheyden, & Cools, 2003). The principal investigator agrees with the findings of the research since the results of the study suggested that individuals, whose primary cognitive style was planning, showed higher levels of teacher's efficacy in the three domains: (a) student engagement; (b) instructional strategies; and (c) classroom management. The results also revealed that teachers with knowing and creative cognitive styles were more efficacious in maintaining control in the classroom.

Furthermore, a recent study found that demographic factors such as (a) age; (b) ethnicity; (c) gender; and (d) work experience had no influence on academic performance (Sulaiman & Mohezar, 2006). The principal investigator refutes these findings due to the fact that although the study did not directly target academic performance, based on the results of the study, there were no significant finding of the above attributes, with the exception of age and gender.

Researchers in the future could improve generalizability of future findings by measuring cognitive styles and the self-efficacy of teachers of ELL students from different school districts within the state, as well as examining teachers of ELL students from different states, with a more heterogeneous ethnic makeup of the population. Researchers should also investigate the influence of demographic characteristic and teacher efficacy in regions with heavy minority groups, from cultures different than that of Hispanics, to compare the results. Another alternative would be to conduct a longitudinal study following a teacher sample to investigate if

there was a variation in the self-efficacy scores and cognitive styles change as the years of teaching and amount of training increased. Moreover, the study should be replicated in other different diverse population areas such as with the (a) Vietnamese; (b) Mexicans; and (c) Haitians to determine if the relationship will occur.

According to the findings of the study, the unanticipated results could be explored further. First, although the results demonstrated strong correlations with teachers who were enrolled in ESOL programs after having attended school in the U.S. and with teachers who were ESOL endorsed and self-efficacy levels, no direct correlations could be drawn from the study due to the small sample size. It would be beneficial to determine if the correlation truly existed with larger sample sizes.

Furthermore, future researchers should consider if the factors extend to other diverse populations of teachers and how they might relate to cognitive styles and teachers' efficacy. The literature revealed that ELL students arrived in American public schools at every age, with various levels of formal education, and from all socio-cultural backgrounds. The deficit of qualified instructional personnel and the low academic achievement of ELL students indicated the need for more research in the role that ESOL endorsement played in student achievement.

Information regarding teachers who participated in ESOL programs after having attended school in the U.S., ESOL endorsement, and the relationship with self-efficacy could aid school districts and teacher education programs developing professional development that target specific areas of teacher self-efficacy. Consequently, professional development will improve the education attainment of ELL students and to close the existing achievement gap. Increasing teachers' self-efficacy could transfer down to the student population by improving student

performance (Ross, Hogaboam-Gray, Hannay, 2001; Tucker et al, 2005), in particular with the challenging standards in the education of ELL students.

Future research could (a) include participants' college major in education; (b) compare the knowledge of ELL students; and (c) explore the diverse experiences and backgrounds. Moreover, the skills of teachers who enter the field of education and those of experienced teachers were not examined in the study.

Finally, additional research will be needed to determine the role of cognitive styles in increasing student achievement. The majority of the studies indicated that often teachers fail to identify the different cognitive styles and forms of intelligence relevant to the diverse population of students while at school (Grigorenko, Meier, Lipka, Mohatt, Yanez, and Sternberg, 2004). Many concerns regarding the ability of current teacher education programs to fully prepare teachers for culturally and linguistically diverse classrooms have been noted (Gay and Howard, 2000). The results from the study indicated that teachers with planning cognitive style were highly efficacious teachers. However, the study did not investigate the effectiveness of the cognitive style.

Implications for Practice

The projections of the ELL population growth indicated that by the year 2030 they would comprise of 40% of the school age student population in the United States (Thomas & Collier, 2002). The *NCLB* Act was enacted by President George W. Bush in 2002, with the efforts to ensure high quality education for all students and close the achievement gap among minority and disadvantaged students. Schools around the nation were negatively affected by the accountability measures, especially ELL students (Crawford, 2004).

Furthermore, studies regarding teachers' preparation programs, indicated teachers consistently reporting a low level of professional training to educate students from culturally and linguistically diverse backgrounds (Knoblauch & Hoy; Ladson-Billings, 2000). Despite the necessity for professional development to boost the use of standards in instruction that would further increase academic achievement, the focus continued to be geared toward accountability while disregarding professional development (Menken, 2000). ELL students demonstrated learning challenges in schools, attributed mainly to (a) inadequate curriculum and instruction; and (b) staff development (Diaz, 2001).

The nation's student population that has consistently graduated from high school has accomplished (a) minimal preparatory skills for the workplace; (b) poor learning strategies that affect retention in higher educational institutions; and (c) inadequacies in the ability to compete with the challenge of globalization (Achieve, 2008). "The ELL student population had the highest dropout rate and the lowest graduation rate in the nation" (NCLB Issue Brief, 2007, p. 10). In addition, with the advancement of technology in education, universities have changed the methods of educational delivery. Online distance education has become the recent trend for learning (Butler, 2008). Identifying students' cognitive styles of learning is crucial for higher education institutions to (a) develop; (b) plan; and (c) implement online distance education courses.

Teacher deomographics revealed an unexpected findings in the area of teacher efficacy. The results yielded that student engagement and classroom management were significantly influenced when teachers were ESOL endorsed. The results would be critical for the department of professional development in school districts across the nation. The reasons for teachers not having ESOL endorsement on the teaching certificate could be attributed to the fact that many

states did not require general classroom teachers to have any specific professional development training in teaching ELL students (Smith-Davis, 2004). Furthermore, Gandara, Maxwell-Jolly, and Driscoll (2005) indicated that states required minimum or no professional development, and school districts across the nation were providing inadequate training for ELL teachers.

The results also indicated that instructional strategies were significantly influenced by the number of years teaching. The reasons could be attributed to the fact that experienced teachers possessed the teaching strategies and professional development required to impact student achievement. Unfortunately, often, new teachers working in inner-city schools, with minimum experience, were responsible to teach ELL students. The literature indicated that inner-city schools had a high density of ELL population (Recruiting New Teachers, Inc., 1999).

The literature indicated that the state of Florida seemed to lead the rest of the states regarding requirements to teach diverse population of students. Florida Department of Education required teachers to undergo training methods and preparation in English for students of other languages (ESOL). Teachers accomplished ESOL Endorsement requirements by completing 300 in-service points or 15 college semesters.

The large number of studies examining teachers' self-efficacy investigated areas other than cognitive styles or generalized results across the board with general classroom teachers. The literature identified the need for more research in the area of teachers of ELL students, identifying desirable cognitive styles and research that examined what efficacious teachers did to boost student learning (Foundation of Success, 2008). The study suggested that some demographic characteristics may possibly have had an effect on the self-efficacy of the teachers of ELL students. In addition, the finding suggested that teachers with the planning cognitive

style were more likely to (a) engage students; (b) use more instructional strategies; and (c) have better classroom management (higher teacher self-efficacy) than teachers with the other cognitive styles.

Self-efficacy affected academic performance and student achievement in culturally diverse students (Tucker, Porter, Reinke, Herman, Ivery, Mack, and Jackson, 2005) as well as teachers' beliefs about the contributing factors to student success (Bandura, 1997; Pajares, 2006). Self-efficacy also positively influenced (a) teacher motivation; (b) persistence; (c) instructional strategies; and (d) objectives (Pajares, 2006).

The researcher explored the relationship between cognitive styles and teachers' self-efficacy among K-12 teachers of ELL students. The results of the study revealed that cognitive styles may affect teachers' self-efficacy. Teachers of ELL students with a specific cognitive style, such as planning, exhibited higher levels of self-efficacy. School districts and school administrators may utilize the information and the desirable characteristic to search for stronger candidates to teach ELL students. In addition, school leaders could include professional development opportunities to increase teacher self-efficacy that could lead to higher student achievement among ELL students.

Demographic characteristics played an important role in the study. The teachers, who participated in ESOL programs and were ESOL endorsed, could potentially influence student achievement, since the self-efficacy levels revealed a positive correlation. In addition, familial status approached near significant levels on classroom management. School districts may benefit from utilizing the information to provide additional support and training that could

reduce such differences to ensure that all teachers were highly qualified to increase student achievement to all students, including ELL students.

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APPENDIXES

APPENDIX A

Cognitive Style Indicator (CoSI)

Please indicate to what extent the following statements typify you. There are 5 possibilities.

1 = typifies me totally not 2 = typifies me rather not 3 = neutral 4 = typifies me rather well 5 = typifies me totally

1	I like much variety in my life.	1	2	3	4	5
2	I study each problem until I have understood the underlying logic.	1	2	3	4	5
3	I prefer well-prepared meetings with a clear agenda and strict time management.	1	2	3	4	5
4	I like to contribute to innovative solutions.	1	2	3	4	5
5	New ideas attract me more than existing solutions.	1	2	3	4	5
6	I make definite engagements which I follow-up meticulously.	1	2	3	4	5
7	I try to avoid routine.	1	2	3	4	5
8	I want to have a full understanding of all problems.	1	2	3	4	5

9	Developing a clear planning is very important to me.	1	2	3	4	5
10	A good task is a well-prepared task.	1	2	3	4	5
11	I prefer to look for creative solutions.	1	2	3	4	5
12	I always want to know what should be done when.	1	2	3	4	5
13	I like to analyze problems.	1	2	3	4	5
14	I like to extend the boundaries.	1	2	3	4	5
15	I make detailed analyses.	1	2	3	4	5
16	I prefer clear structures to do my job.	1	2	3	4	5
17	I am motivated by ongoing innovation.	1	2	3	4	5
18	I like detailed action plans.	1	2	3	4	5

Add the scores you gave for each question in the boxes below, next to the indicated question number. Sum up the scores to see how you score on the different cognitive styles.

K ☐ = 2 ☐ + 8 ☐ + 13 ☐ + 15 ☐

P ☐ = 3 ☐ + 6 ☐ + 9 ☐ + 10 ☐ + 12 ☐ + 16 ☐ + 18 ☐

C ☐ = 1 ☐ + 4 ☐ + 5 ☐ + 7 ☐ + 11 ☐ + 14 ☐ + 17 ☐

Description:

The CoSI was designed to assess preferences for information processing. It distinguishes between 3 cognitive styles.

Purpose

- A knowing style emphasizes logic, objectivity, and precision.
- A planning style emphasizes structure, control, and routines.
- A creating style emphasizes subjectivity, impulsivity, and openness to possibilities.

Questions — 18 items using 5-point ratings (1 = totally disagree to 5 = totally agree)

3 sub-scales:

Sub-scales

- Knowing: 4 items
- Planning: 7 items
- Creating: 7 items

Domain

Psychometrics

Sample items

- I want to have a full understanding of all problems. (Knowing)
- Developing a clear plan is very important to me. (Planning)
- I like to contribute to innovative solutions. (Creating)

References:

Scale:

Cools, E., & Van den Broeck, H. (2007). Development and validation of the Cognitive Style Indicator. Journal of Psychology: Interdisciplinary and Applied, 141(4), 359-387.

APPENDIX B

Teachers' Sense of Efficacy Scale[1] (long form)

Teacher Beliefs	How much can you do?								
Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activities. Please indicate your opinion about each of the statements below. Your answers are confidential.	Nothing		Very Little		Some Influence		Quite A Bit		A Great Deal
1. How much can you do to get through to the most difficult students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
2. How much can you do to help your students think critically?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
3. How much can you do to control disruptive behavior in the classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
4. How much can you do to motivate students who show low interest in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
5. To what extent can you make your expectations clear about student behavior?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
6. How much can you do to get students to believe they can do well in school work?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
7. How well can you respond to difficult questions from your students ?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
8. How well can you establish routines to keep activities running smoothly?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
9. How much can you do to help your students value learning?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
10. How much can you gauge student comprehension of what you have taught?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
11. To what extent can you craft good questions for your students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
12. How much can you do to foster student creativity?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
13. How much can you do to get children to follow classroom rules?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
14. How much can you do to improve the understanding of a student who is failing?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15. How much can you do to calm a student who is disruptive or noisy?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
16. How well can you establish a classroom management system with each group of students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
17. How much can you do to adjust your lessons to the proper level for individual students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
18. How much can you use a variety of assessment strategies?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
19. How well can you keep a few problem students form ruining an entire lesson?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
20. To what extent can you provide an alternative explanation or example when students are confused?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
21. How well can you respond to defiant students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
22. How much can you assist families in helping their children do well in school?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
23. How well can you implement alternative strategies in your classroom?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
24. How well can you provide appropriate challenges for very capable students?	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Directions for Scoring the Teachers' Sense of Efficacy Scale[1]

Developers: Megan Tschannen-Moran, College of William and Mary
Anita Woolfolk Hoy, the Ohio State University.

Construct Validity

For information the construct validity of the Teachers' Sense of Teacher efficacy Scale, see:

> Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805.

Factor Analysis

It is important to conduct a factor analysis to determine how your participants respond to the questions. We have consistently found three moderately correlated factors: *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management*, but at times the make up of the scales varies slightly. With preservice teachers we recommend that the full 24-item scale (or 12-item short form) be used, because the factor structure often is less distinct for these respondents.

Subscale Scores

To determine the *Efficacy in Student Engagement*, *Efficacy in Instructional Practices*, and *Efficacy in Classroom Management* subscale scores, we compute unweighted means of the items that load on each factor. Generally these groupings are:

Long Form

Efficacy in Student Engagement:	Items 1, 2, 4, 6, 9, 12, 14, 22
Efficacy in Instructional Strategies:	Items 7, 10, 11, 17, 18, 20, 23, 24
Efficacy in Classroom Management:	Items 3, 5, 8, 13, 15, 16, 19, 21

Short Form

Efficacy in Student Engagement:	Items 2, 3, 4, 11
Efficacy in Instructional Strategies:	Items 5, 9, 10, 12
Efficacy in Classroom Management:	Items 1, 6, 7, 8

Reliabilities

In Tschannen-Moran, M., & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing and elusive construct. *Teaching and Teacher Education, 17*, 783-805, the following were found:

	Long Form			Short Form		
	Mean	SD	alpha	Mean	SD	alpha
OSTES	7.1	.94	.94	7.1	.98	.90
Engagement	7.3	1.1	.87	7.2	1.2	.81
Instruction	7.3	1.1	.91	7.3	1.2	.86
Management	6.7	1.1	.90	6.7	1.2	.86

[1] Because this instrument was developed at the Ohio State University, it is sometimes referred to as the *Ohio State Teacher Efficacy Scale*. We prefer the name, *Teachers' Sense of Efficacy Scale*.

APPENDIX C

Initial Survey, Part 1: The Teacher Demographic Profile Checklist

INSTRUCTIONS: Please choose the category or fill in the blank for each question that best describes you.

1. Your gender: □ Male □ Female
2. Your age: □ 20-30 □ 31-40 □ 41-50 □ 51-60 □ 61+
3. Race: □ Caucasian □ African American □ Hispanic □ Asian □ Other
4. Your first language: □ English □ Spanish □ Creole □ Other _____
5. Bilingual: □ Yes □ No
6. Place of Birth: □ U.S. □ Non U.S
7. Place of Formal Education: □ U.S □ Non U.S
8. Type of ESOL program if you attended school in the U.S: □ English only □ Pull-out □ Bilingual □ Other
9. Your marital status: □ Single□ Married □ Divorced □ Widowed
10. Familiar status: □ Zero □ One Child □ Two children □ Three or more children
11. Do you teach of ELL students of any level?: □Yes □ No
12. ESOL Endorsement: □ Yes □ No
13. General classroom teacher: □ Yes □ No
14. Level you teach: □ Elementary □ Middle □ High School
15. Number of years teaching: □ 1-5 □ 6-10 □ 11-15 □ 16-20 □ 21-25 □ 26-30 □ 31+
16. Number of years teaching ELL students: □ 1-5 □ 6-10 □ 11-15 □ 16-20 □ 21-25 □ 26-30
17. Your educational level: □ Bachelor's degree □ Master's degree □ Specialist degree □ Doctorate degree

APPENDIX D

Data Collection Tables for Teacher Demographics

Var. 1 ID No.	Var. 2 Gender	Var. 3 Age	Var. 4 Race	Var. 5 First language	Var. 6 Bilingual	Var. 7 Place of Birth	Var. 8 Place of Formal Education	Var. 9 Type of ESOL Program Attended	Var. 10 Marital Status	Var. 11 Familiar Status
(1-200)	1= Male 2= Female	1= 20-30 2= 31-40 3= 41-50 4= 51-60 5= 61+	1=Caucasian 2= African American 3= Hispanic 4= Asian 5= Other	1-English 2- Spanish 3- Creole 4- Other	1- Yes 2- No	1- U.S 2- Non U.S	1= U.S 2= Non U.S	1= English-only 2= Pull- out 3= Bilingual 4= Other	1= Single 2-Married 3=Divorce4-Widowed 5- Other	1-Zero 2-One child 3- Two children 4- Three or more children

Var. 12 Teach. of ELL student of any level	Var. 13 ESOL Endorsement	Var. 14 Gen. Ed. teacher	Var. 15 Level you teach	Var. 16 Number of years teaching	Var. 17 Number of years teaching ELL students	Var. 18 Educ. level
1- Yes 2- No	1-Yes 2- No	1- Yes 2- No	1- Elem. 2-Middle 3-High school	1= 1-5 2= 6-10 3= 11-15 4= 16-20 5= 21-25 6= 26-30 7= 31+	1= 1-5 2= 6-10 3= 11-15 4= 16-20 5= 21-25 6= 26-30	1- Bachelor 2- Masters 3- Specialist 4- Doctorate

APPENDIX E

Jani,

Your study sounds like an interesting one. I am happy to grant you permission to adapt and use my Teacher Sense of Efficacy scale. Because your request is a little more complex than most I receive, with the inclusion of the permissions needed by ProQuest, would you please draft a letter covering all of the permissions you seek and send it to me in an email? I will copy it onto letterhead, sign it, and either send it via snail mail or electronically.

All the best,

Megan Tschannen-Moran

The College of William and Mary
School of Education
Educational Policy, Planning, and Leadership
PO 8795, Jones Hall
Williamsburg, VA 23187-8795
Telephone: [redacted]
http://mxtsch.people.wm.edu

-----Original Message-----
From: Jani Rodriguez [redacted]
Sent: Monday, July 13, 2009 1:32 PM
To: [redacted]
Subject: Permission Request

Dear Dr. Tschannen-Moran,

My name is Jani Rodriguez. I am a doctoral candidate in the Ph.D. program at Lynn University in Boca Raton, Florida. My major is Global Leadership, with a specialization in Education Leadership. My dissertation focuses on "Cognitive styles and self-efficacy of teachers of English Language Learner students." I would like to determine the relationship of cognitive learning styles and self-efficacy of educators responsible for the instruction of English Language Learners in a public school system in South Florida.

This is a request for permission to use and adapt the Teacher Sense of Efficacy Scale in my dissertation. Upon completion, my dissertation will be published by ProQuest Information and Learning, who may supply copies of the dissertation on demand and may make the dissertation accessible in electronic formats. The requested permission extends to any future revisions and editions of my dissertation, including non-exclusive world rights in all languages, and to the prospective publication of my dissertation by ProQuest Information and Learning (ProQuest) through its UMI Dissertation Publishing business.

APPENDIX F

Eva Cools, PhD
Post-doctoral research associate
Competence centre People & Organization, OB department
Vlerick Leuven Gent Management School
Reep 1, B-9000 Gent, Belgium
T: [redacted] F: [redacted]
[redacted]

From: Eva Cools
Sent: 30 July 2009 08:05
To: Jani Rodriguez
Cc: Herman Van den Broeck; Karlien Vanderheyden
Subject: RE: Cognitive Style Inventory

Dear Jani,

Thank you for your interest in using our instrument in your doctoral research. As already mentioned by my colleague, we give you permission to use the questionnaire for research purposes (and not for commercial reasons). However, before using the instrument, it is important to know that since the publication of the working paper that you found, the instrument has been further developed and validated and is now called the Cognitive Style Indicator (CoSI). The major difference with the earlier instrument - the Cognitive Style Inventory - is that we kept only three cognitive styles and made some further changes to the items.

In the attachment I sent you the questionnaire as we use it in our own research, and the items are given in this order. We do not have norm scores so far as we don't have much cross-cultural data yet. If you use the instrument, we would really appreciate it to receive your raw data back to further establish the cross-cultural validation of our instrument.
If you want more information on our recent work and the validation of the CoSI questionnaire, I can refer you to my doctoral thesis, which I defended in September 2007 and which has recently been published: Cools, E. (2008). Cognitive styles and management behaviour: theory, measurement, and application. Saarbrücken, Germany: VDM Verlag Dr. Müller. [ISBN = 978-3-639-09223-3] (304 pages)

The development and validation of the Cognitive Style Indicator has also been published in The Journal of Psychology in 2007: Cools, E. & Van den Broeck, H. (2007). Development and validation of the Cognitive Style Indicator. The Journal of Psychology, 141, 4, 359-387.

I hope your research goes well!

Please let me know whether you decide to use the CoSI in your research or not. Do not hesitate to contact me with further questions.
Best wishes, Eva

APPENDIX G

Informed Consent Form

Lynn University

3601 N. Military Trail Boca Raton, Florida 33431

PROJECT TITLE: Cognitive Styles and Teacher Efficacy with Teachers of ELL Students

I, Jani Rodriguez, am a doctoral student at Lynn University. I am studying Global Leadership, with a specialization in education. One of my degree requirements is to conduct a research study.

PURPOSE OF THIS RESEARCH STUDY:

The purpose of this non-experimental exploratory correlational study will be to examine the relationship between cognitive styles as measured by the Cognitive Styles Indicator (CoSI) (See Appendix A) (Cools, & Van den Broeck, 2007) and self-efficacy as measured by the Teachers' Sense of Efficacy Scale (TSES) (See Appendix B) (Tschannen-Moran, & Hoy, 2001) of the teachers of ELL students and general classroom teachers. In addition, the primary researcher will investigate (a) characteristics of teacher demographics; (b) sense of competence; and (c) sense of efficacy when teaching ELL students while working in a public school district in Southeast Florida.

There are approximately 14,000 K-12 teachers from every subject area employed at a Southeast Florida school district that are invited to participate in this study.

POSSIBLE RISKS AND BENEFITS OF BEING IN THE STUDY:

This study involves minimal risk. In addition, participation in this study requires a minimal amount of time and effort.

There may be no direct benefit in participating in this research, but knowledge may be gained which may facilitate instructional innovation in the fields of the ELL and teacher efficacy.

CONFIDENTIALITY AND ANONYMITY:

Surveys will be anonymous and strictly confidential. The participants will not be identified and data will be reported as "group" responses. Participation in this survey is voluntary and return of the completed survey will constitute the informed consent to participate, and data will be destroyed after five years.

Every effort will be made to maintain anonymity. The identity in this study will be treated as confidential and the data will be coded with a code number. The e-mail address, IP address, and individual responses will not be identified nor tracked as part of data collection. Anonymity will be maintained to the degree permitted by the technology used. Specifically, no guarantees can be made regarding the interception of data sent via the Internet by any third parties.

The results of this study may be published in a dissertation, scientific journals or presented at professional meetings. In addition, the individual privacy will be maintained in all publications or presentations resulting from this study.

All the data gathered during this study, which were previously described, will be kept strictly confidential by the researcher. Data will be stored in locked files and destroyed at the end of the research. All information will be held in strict confidence and will not be disclosed unless required by law or regulation.

VOLUNTARY NATURE OF THE STUDY:

Participants are free to choose whether or not to participate in this study. There will be no penalty or loss of benefits to which you are otherwise entitled if you choose not to participate. If you decide to stop participating in the study, the data already collected from the participant will be destroyed, with no further impact.

CONTACTS AND QUESTIONS:

Any further questions you have about this study or your participation in it, either now or any time in the future, will be answered by Jani Rodriguez who may be reached at: [redacted] or [redacted] and Dr. Kosnitzky, faculty sponsor who may be reached at: [redacted] or [redacted] For any questions regarding your rights as a research subject, you may call Dr. Wasserman, Chair of the Lynn University Institutional Review Board for the Protection of Human Subjects, at [redacted] or [redacted] If any problems arise as a result of your participation in this study, please call the Principal Investigator (Jani Rodriguez) and the faculty sponsor (Dr. Kosnitzky) immediately.

This consent form will appear at the beginning of the surveys and you may copy it for your records.

AGREEMENT:

I hereby certify that I have read the procedure described above and the nature of the above project has been provided to the person participating in this project. I voluntarily agree to participate in the research study and I have received a copy of the written documentation. By the person's consent to voluntary participate in this study, the person has represented that he/she is at least 18 years of age, and that he/she does not have a medical problem or language or educational barrier that precludes his/her understanding of my explanation. Therefore, I hereby certify that to the best of my knowledge the person participating in this project understands clearly the nature, demands, benefits, and risks involved in his/her participation.

Participant's Name:_____Signature:_____Date:_____

Researcher's Name:_____Signature:_____Date:_____

APPENDIX H

LYNN UNIVERSITY
3601 North Military Trail
Boca Raton, FL 33431-5598
Email: [redacted]

February 8, 2011

Jani Rodriguez
[redacted]

Dear Jani:

The proposal that you have submitted, *Relationship of Cognitive Styles and Self-Efficacy with Teachers of English Language Learner Students* has been granted for approval by the Lynn University's Institutional Review Board.

You are responsible for complying with all stipulations described under the Code of Federal Regulations 45 CFR 46 (Protection of Human Subjects). This document can be obtained from the following address:

http:/www.hhs.gov/ohrp/humansubjects/guidance/45cfr46htm

Attached is Form 8, Termination Form, which also needs to be completed and returned to Ms. Teddy Davis at [redacted]. You are reminded that should you need an extension, for reporting changes, or report the completion of your study, an additional document must be completed.

Good luck in all your future endeavors!

Warmest regards,

Dr. Theodore Wasserman

Dr. Theodore Wasserman
IRB Chair

Cc: Dr. C. Patterson
Dr. A. Kosnitzky
File: 2011-S030

APPENDIX I

Demographic Characteristics of Teachers

Demographic Variable	Frequency	Valid Percent
Gender (n=89)		
Male	28	27.5%
Female	61	59.8%
Age		
20-30	9	10.1%
31-40	24	27.0%
51-60	27	30.3%
61+	3	3.4%
Race		
Caucasian	26	29.5%
African American	13	14.8%
Hispanic	47	53.4%
Asian	1	1.1%
Other	1	1.1%
First Language		
English	48	53.9%
Spanish	34	38.2%
Creole	1	1.1%
Other	6	6.7%
Bilingual		
Yes	58	66.7%
No	29	33.3%
Place of Birth		
U.S.	52	59.1%

Non-U.S.	35	39.8%
Place of Formal Education		
U.S	78	90.7%
Non-U.S.	8	9.3%
Type of ESOL Prog. Attended		
None	62	71.3%
English only	15	17.2%
Pull out	4	4.6%
Bilingual	6	6.9%
Marital Status		
Single	19	22.1%
Married	46	53.5%
Divorced	17	19.8%
Widowed	2	2.3%
Other	2	2.3%
Familiar Status		
Zero	25	28.4%
One Child	21	23.9%
Two Children	28	31.8%
Three or more	14	15.9%
Teach ELL Students Any Level		
Yes	66	75.9%
No	21	24.1%
ESOL Endorsement		
Yes	57	64.8%
No	31	35.2%
General Classroom Teacher		

Yes	63	71.6%
No	25	28.4%
Level of Teaching		
Elementary	8	9.2%
Middle	27	31.0%
High	52	59.8%
Number of Years Teaching		
1-5	14	15.9%
6-10	18	20.5%
11-15	17	19.3%
16-20	12	13.6%
21-25	13	14.8%
26-30	7	8.0%
31+	7	8.0%
Number of Years Teaching ELLs		
1-5	24	30.4%
6-10	21	26.6%
11-15	13	16.5%
16-20	9	11.4%
21-25	6	7.6%
26-30	6	7.6%
Educational Level		
Undergraduate	2	2.2%
Bachelor's	30	33.7%
Master's	41	46.1%
Specialist's	13	14.6%
Doctorate	3	3.4%

APPENDIX J

Corre

		Your age:	Your race:	Your first language:	Bilingual:	Place of birth:	Place of formal education:	Type of ESOL program if you attended school in the U.S:	Your marital status:	Familiar status:	Do you t Englis Langua Learn student any lev
Your age:	Correlation Coefficient	1.000	-.259*	-.229	.402**	-.113	.093	-.013	.156	.337**	.
	Sig. (2-tailed)	.	.038	.064	.001	.371	.464	.916	.218	.006	.
	N	66	65	66	66	65	64	65	64	66	
Your race:	Correlation Coefficient	-.259*	1.000	.622**	-.751**	.583**	.246	.223	-.020	-.123	.
	Sig. (2-tailed)	.038	.	.000	.000	.000	.052	.076	.877	.328	.
	N	65	65	65	65	64	63	64	63	65	
Your first language:	Correlation Coefficient	-.229	.622**	1.000	-.655**	.583**	.388**	.230	-.020	-.261*	.
	Sig. (2-tailed)	.064	.000	.	.000	.000	.002	.065	.873	.034	.
	N	66	65	66	66	65	64	65	64	66	
Bilingual:	Correlation Coefficient	.402**	-.751**	-.655**	1.000	-.605**	-.233	-.220	.087	.286*	.
	Sig. (2-tailed)	.001	.000	.000	.	.000	.064	.079	.496	.020	.
	N	66	65	66	66	65	64	65	64	66	
Place of birth:	Correlation Coefficient	-.113	.583**	.583**	-.605**	1.000	.355**	.297*	-.055	-.293*	.
	Sig. (2-tailed)	.371	.000	.000	.000	.	.004	.017	.667	.018	.
	N	65	64	65	65	65	63	64	63	65	
Place of formal education:	Correlation Coefficient	.093	.246	.388**	-.233	.355**	1.000	.079	.043	-.063	.
	Sig. (2-tailed)	.464	.052	.002	.064	.004	.	.537	.739	.622	.
	N	64	63	64	64	63	64	63	62	64	
Type of ESOL program if you attended school in the U.S:	Correlation Coefficient	-.013	.223	.230	-.220	.297*	.079	1.000	-.199	-.072	.
	Sig. (2-tailed)	.916	.076	.065	.079	.017	.537	.	.117	.568	.
	N	65	64	65	65	64	63	65	63	65	
Your marital status:	Correlation Coefficient	.156	-.020	-.020	.087	-.055	.043	-.199	1.000	.323**	.
	Sig. (2-tailed)	.218	.877	.873	.496	.667	.739	.117	.	.009	.
	N	64	63	64	64	63	62	63	64	64	
Familiar status:	Correlation Coefficient	.337**	-.123	-.261*	.286*	-.293*	-.063	-.072	.323**	1.000	.
	Sig. (2-tailed)	.006	.328	.034	.020	.018	.622	.568	.009	.	.
	N	66	65	66	66	65	64	65	64	66	
ClassroomMang	Correlation Coefficient	-.021	-.010	.030	.108	-.081	-.095	-.212	.090	-.184	.
	Sig. (2-tailed)	.879	.944	.828	.434	.562	.498	.125	.515	.179	.
	N	55	54	55	55	54	53	54	54	55	
Gender	Correlation Coefficient	.364**	-.163	-.178	.223	-.093	.206	.063	-.041	.247*	.
	Sig. (2-tailed)	.003	.194	.152	.072	.463	.102	.619	.748	.045	.
	N	66	65	66	66	65	64	65	64	66	
TeaELLs=1 (FILTER)	Correlation Coefficient	.	.	.	.	.	.	.	.	.	.
	Sig. (2-tailed)	.	.	.	.	.	.	.	.	.	.
	N	66	65	66	66	65	64	65	64	66	

h English earner any level?:	Correlation Coefficient	.	.	.	.	.	.	.	.	.	.
	Sig. (2-tailed)	.	.	.	.	.	.	.	.	.	.
	N	66	65	66	66	65	64	65	64	66	66
rsment:	Correlation Coefficient	-.108	-.116	.070	-.083	.139	.066	.218	-.112	-.327**	.
	Sig. (2-tailed)	.386	.356	.575	.510	.269	.606	.081	.379	.007	.
	N	66	65	66	66	65	64	65	64	66	66
neral eacher?:	Correlation Coefficient	.052	-.073	-.114	.111	-.067	-.034	-.149	-.021	.132	.
	Sig. (2-tailed)	.679	.561	.361	.373	.595	.792	.235	.870	.290	.
	N	66	65	66	66	65	64	65	64	66	66
ach:	Correlation Coefficient	-.006	-.032	.011	-.081	.197	-.099	-.011	.123	.047	.
	Sig. (2-tailed)	.961	.802	.928	.517	.115	.435	.930	.332	.708	.
	N	66	65	66	66	65	64	65	64	66	66
years	Correlation Coefficient	.769**	-.084	-.169	.190	-.081	-.011	.080	.055	.265*	.
	Sig. (2-tailed)	.000	.505	.176	.126	.522	.930	.527	.668	.031	.
	N	66	65	66	66	65	64	65	64	66	66
years teaching nguage idents:	Correlation Coefficient	.581**	-.163	-.252*	.257*	-.163	.027	.070	-.075	.242	.
	Sig. (2-tailed)	.000	.195	.041	.038	.193	.830	.580	.558	.050	.
	N	66	65	66	66	65	64	65	64	66	66
tional level:	Correlation Coefficient	.181	-.109	-.087	.161	-.148	-.076	-.204	.221	.134	.
	Sig. (2-tailed)	.145	.388	.490	.195	.241	.550	.102	.079	.283	.
	N	66	65	66	66	65	64	65	64	66	66
	Correlation Coefficient	-.026	-.051	.043	-.046	-.006	.013	-.116	.014	-.155	.
	Sig. (2-tailed)	.845	.703	.745	.729	.967	.923	.384	.918	.240	.
	N	59	58	59	59	58	57	58	57	59	59
	Correlation Coefficient	.055	-.004	.198	-.083	.072	.074	-.221	-.153	-.278*	.
	Sig. (2-tailed)	.684	.975	.135	.534	.595	.586	.099	.260	.034	.
	N	58	57	58	58	57	56	57	56	58	58
	Correlation Coefficient	.387**	-.421**	-.221	.352**	-.264*	-.151	.071	.033	.167	.
	Sig. (2-tailed)	.003	.001	.096	.007	.047	.268	.602	.805	.210	.
	N	58	57	58	58	57	56	57	57	58	58
gagement	Correlation Coefficient	-.006	.147	.187	-.132	.172	-.103	-.151	-.028	-.034	.
	Sig. (2-tailed)	.965	.303	.184	.350	.226	.471	.289	.846	.811	.
	N	52	51	52	52	51	51	51	51	52	52
alStrag	Correlation Coefficient	.054	-.021	.150	.100	-.043	-.102	-.280*	.138	-.165	.
	Sig. (2-tailed)	.704	.883	.290	.480	.767	.477	.047	.333	.244	.
	N	52	51	52	52	51	51	51	51	52	52

Section 2 (continued)

66	66	66	66	66	66	59	58	58	52	52	55	66	
1.000	-.145	.241	-.127	-.140	-.295*	.034	.055	.101	-.317*	-.278*	-.255	-.164	.
	.246	.052	.309	.262	.016	.797	.681	.450	.022	.046	.060	.188	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
-.145	1.000	.042	.195	-.073	.079	-.001	-.030	-.001	-.036	.066	-.063	-.050	.
.246	.	.735	.116	.563	.527	.993	.821	.993	.801	.642	.650	.693	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
.241	.042	1.000	.083	.022	.171	-.037	.055	.085	-.053	-.029	-.085	.068	.
.052	.735	.	.508	.859	.171	.781	.682	.524	.709	.838	.536	.589	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
-.127	.195	.083	1.000	.737**	.098	-.053	.101	.249	.024	.147	.056	.130	.
.309	.116	.508	.	.000	.436	.691	.449	.059	.867	.299	.686	.297	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
-.140	-.073	.022	.737**	1.000	.120	-.107	.043	.110	-.212	-.049	-.135	.130	.
.262	.563	.859	.000	.	.337	.419	.748	.412	.131	.728	.326	.299	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
-.295*	.079	.171	.098	.120	1.000	.168	-.056	.042	-.042	.131	-.070	.000	.
.016	.527	.171	.436	.337	.	.204	.678	.756	.767	.353	.612	1.000	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
.034	-.001	-.037	-.053	-.107	.168	1.000	.466**	.405**	.401**	.413**	.463**	-.136	.
.797	.993	.781	.691	.419	.204	.	.000	.002	.004	.003	.000	.303	.
59	59	59	59	59	59	59	57	56	50	51	54	59	
.055	-.030	.055	.101	.043	-.056	.466**	1.000	.084	.374**	.425**	.463**	-.112	.
.681	.821	.682	.449	.748	.678	.000	.	.537	.007	.002	.000	.404	.
58	58	58	58	58	58	57	58	56	50	49	53	58	
.101	-.001	.085	.249	.110	.042	.405**	.084	1.000	.183	.180	.122	.176	.
.450	.993	.524	.059	.412	.756	.002	.537	.	.208	.216	.390	.187	.
58	58	58	58	58	58	56	56	58	49	49	52	58	
-.317*	-.036	-.053	.024	-.212	-.042	.401**	.374**	.183	1.000	.648**	.766**	-.197	.
.022	.801	.709	.867	.131	.767	.004	.007	.208	.	.000	.000	.161	.
52	52	52	52	52	52	50	50	49	52	50	51	52	
-.278*	.066	-.029	.147	-.049	.131	.413**	.425**	.180	.648**	1.000	.844**	-.282*	.
.046	.642	.838	.299	.728	.353	.003	.002	.216	.000	.	.000	.043	.
52	52	52	52	52	52	51	49	49	50	52	51	52	
-.255	-.063	-.085	.056	-.135	-.070	.463**	.463**	.122	.766**	.844**	1.000	-.201	.
.060	.650	.536	.686	.326	.612	.000	.000	.390	.000	.000	.	.140	.
55	55	55	55	55	55	54	53	52	51	51	55	55	

Are you a general classroom teacher?:	Level you teach:	Number of years teaching:	Number of years teaching English Language Learner students:	Your educational level:	Knowing	Planning	Creative	Student Engagement	Instructional Strag	Classroom Mang	Gender	TeaELLs (FILTER
.052	-.006	.769**	.581**	.181	-.026	.055	.387**	-.006	.054	-.021	.364**	.
.679	.961	.000	.000	.145	.845	.684	.003	.965	.704	.879	.003	.
66	66	66	66	66	59	58	58	52	52	55	66	
-.073	-.032	-.084	-.163	-.109	-.051	-.004	-.421**	.147	-.021	-.010	-.163	.
.561	.802	.505	.195	.388	.703	.975	.001	.303	.883	.944	.194	.
65	65	65	65	65	58	57	57	51	51	54	65	
-.114	.011	-.169	-.252*	-.087	.043	.198	-.221	.187	.150	.030	-.178	.
.361	.928	.176	.041	.490	.745	.135	.096	.184	.290	.828	.152	.
66	66	66	66	66	59	58	58	52	52	55	66	
.111	-.081	.190	.257*	.161	-.046	-.083	.352**	-.132	.100	.108	.223	.
.373	.517	.126	.038	.195	.729	.534	.007	.350	.480	.434	.072	.
66	66	66	66	66	59	58	58	52	52	55	66	
-.067	.197	-.081	-.163	-.148	-.006	.072	-.264*	.172	-.043	-.081	-.093	.
.595	.115	.522	.193	.241	.967	.595	.047	.226	.767	.562	.463	.
65	65	65	65	65	58	57	57	51	51	54	65	
-.034	-.099	-.011	.027	-.076	.013	.074	-.151	-.103	-.102	-.095	.206	.
.792	.435	.930	.830	.550	.923	.586	.268	.471	.477	.498	.102	.
64	64	64	64	64	57	56	56	51	51	53	64	
-.149	-.011	.080	.070	-.204	-.116	-.221	.071	-.151	-.280*	-.212	.063	.
.235	.930	.527	.580	.102	.384	.099	.602	.289	.047	.125	.619	.
65	65	65	65	65	58	57	57	51	51	54	65	
-.021	.123	.055	-.075	.221	.014	-.153	.033	-.028	.138	.090	-.041	.
.870	.332	.668	.558	.079	.918	.260	.805	.846	.333	.515	.748	.
64	64	64	64	64	57	56	57	51	51	54	64	
.132	.047	.265*	.242	.134	-.155	-.278*	.167	-.034	-.165	-.184	.247*	.
.290	.708	.031	.050	.283	.240	.034	.210	.811	.244	.179	.045	.
66	66	66	66	66	59	58	58	52	52	55	66	
-.164	-.050	.068	.130	.130	.000	-.136	-.112	.176	-.197	-.282*	-.201	1.000	.
.188	.693	.589	.297	.299	1.000	.303	.404	.187	.161	.043	.140	.	.
66	66	66	66	66	66	59	58	58	52	52	55	66	
.	.	.	.	.	.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.	.	.	.	.	.
66	66	66	66	66	66	59	58	58	52	52	55	66	